Soap

O.V.* often means the difference between success and failure for your products. O.V. is that elusive ingredient expected in all essential oils and aromatic chemicals—and always found in Ungerer products. O.V. is ODOR VALUE.

Our extensive purchases are subjected to our elaborate series of tests. Thereby, you secure that controlled uniformity which is in full conformance with the *never-changing* Ungerer standards of quality.

But, Ungerer materials are tested for odor value as well. The trained senses and years of experience combined in this test will save you no end of trouble. We urge you to secure this ODOR VALUE from Ungerer and convert it to Dollar Value in your products.

UNGERER & CO.

13-15 WEST 20th STREET NEW YORK

nd Sanitary Chemicals



Jasmanthia

Firmenich & Co., Inc.

135 FIFTH AVE., NEW YORK

CHICAGO OFFICE: 844 NORTH RUSH STREET

AUG 13 1941

306362

AUG 13 1941

The WORLD'S FAIR enough

The world always recognizes honest value and honest effort to produce the best. Fuld products bow in acceptance of the honored place that leading supply dealers have given them.

"TOPPER" Soap Dispenser STEPS UP

This attractive soap dispenser is designed for beauty and built to take everyday punishment. With its sturdy construction and low price, it will step-up your soap sales.

Fills easily at the top. Precision built push-up-valve.

Protect your

FLY SPRAY BUSINESS

When you supply Fuld's 100% Active Fly Spray, you can be confident that your customers, using it, can duplicate the guaranteed High Kill.

Fuld's full line of Insecticides includes general and selective killers for all household insects and many others.

FULSHINE
Alkali-Proof CLEANER

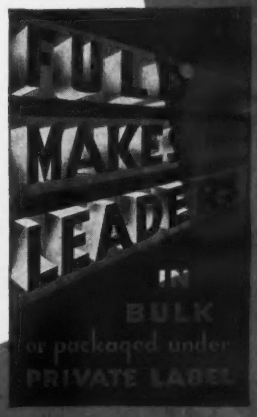
Dealers are selling more FULSHINE because it is the one powerful cleaner with a reserve chemical to maintain a safe, neutrally balanced solution on all materials.

Alkali-proof FULSHINE keeps maintenance costs down and sales up.

For better cleaning everywhere.

SWISH
Liquid Dry-Cleaner for WALLS

This new chemical cleaner is turning in the country's best scores on cleaning painted walls. It eliminates the time-wasting, soaking, and sloppy rinsing processes, and leaves walls clean and unstreaked in half the time.



Selling.. Jobbers ONLY!

DEODORANT BLOCKS
LIQUID DEODORANTS
LIQUID CLEANERS
LIQUID SOAPS
OIL SOAPS
INSECTICIDES
DISINFECTANTS
SELF POLISHING WAXES
PASTE WAXES

POWDERED WAXES
FLOOR SEALS
FLOOR TREATMENTS
METAL POLISHES
FURNITURE POLISHES
PLUMBING SPECIALTIES
SPECIAL CLEANERS
SOAP DISPENSERS
DEODORANT BLOCK HOLDERS

FULD BROS.

702-710 SOUTH WOLFE STREET BALTIMORE

SALES OFFICES: SEATTLE • KANSAS CITY • SAN FRANCISCO • BOSTON
METROPOLITAN NEW YORK OFFICE: 127 TROUTMAN ST., BROOKLYN, N. Y. TELEPHONE: EVergreen 8-2498

LOTIONS and toiletries

call for quality GLASS CONTAINERS



Any pharmaceutical product or toiletry sold to consumers makes a better impression when it comes in a clear, sparkling, brilliant glass container. For example, your lotion may be more soothing to the skin than another, but the way it is packed and the container in which it comes, has a whale of a lot to do with its popularity. In this important respect—containers—you can always depend on Anchor Hocking...they have a clarity and a brilliance, a strength and a sturdiness, a uniformity and an accuracy that makes them your logical choice. Typical of the Anchor Hocking P & P lines are the Crown Ovals shown above, ranging from 2 to 16 ounces in capacity. Ask for samples of this or any other style. ANCHOR HOCKING GLASS CORPORATION, Lancaster, Ohio.

★ ★ ★

CLOSURES, TOO, ARE IMPORTANT—No package is "right" without the proper closure—one that is at once efficient in sealing as well as aiding the appearance of the package and contributing to its convenience. Anchor Caps are made in great variety of styles and types, decorated and plain, of metal and molded materials—right for every sort of product or package.

ANCHOR HOCKING GLASS CAPS

-an unbeatable combination

Soap and Sanitary Chemicals

Volume XV
Number 7

JULY
1939



SANITARY Products Section, which forms a part of every issue of SOAP, begins on page 71.



Contents

- Editorials 19
- Trend in Consumption of Soap Kettle Fats..... 21
- Soap in the Public Prints..... 23
  By Preston Mack
- Oil of Lemongrass..... 26
  By Dr. Ernest Guenther
- Cleaning Up Fatty Oils..... 30
  By Paul D. Boone
- Methyl Cellulose in Soap..... 57
- Insecticides—What Does the Housewife Want to Know? 95
  By Dr. W. H. Eddy
- Does the Drug Law Apply?..... 99
  By Dr. H. C. Fuller
- Label Claims 103
  By Dr. Alvin J. Cox
- Rotenone Series Compounds..... 107
  By W. N. Sullivan
- Contracts Awarded 45
- New Trademarks 47
- Raw Material Markets..... 51
- Raw Material Prices..... 53
- Products and Processes..... 59
- New Equipment 63
- New Patents 65
- Classified Advertising 129
- Advertisers' Index 139

Published by

MAC NAIR-DORLAND COMPANY, INC.
254 WEST 31st STREET NEW YORK. N. Y.

Subscription rate, $3.00 per year. Foreign, including Canadian, $4.00. Copy closing dates—22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Reentered as second-class matter, Feb. 9, 1938, at Post Office, New York, under act of March 3, 1879. Mail circulation, June, 1939, issue, 3,972 copies. Total distribution, 4,450.

DU PONT

TETRA SODIUM PYRO PHOSPHATE

FOR SOAPS AND CLEANING COMPOUNDS



DU PONT "PYRO" possesses several outstanding characteristics which may suggest applications in your products.

It is readily soluble, odorless, aids detergency and cleansing, improves emulsification, sudsing and rinsing.

DU PONT "PYRO" is packed in 400 pound barrels and 100 pound bags available for prompt shipment.

We invite your inquiry on "PYRO" and other Du Pont chemicals for the soap industry.

Let us also quote you on—

Tri Sodium Phosphate
Sodium Metasilicate
Sodium Silicate
Caustic Soda
Soda Ash

E. I. DU PONT DE NEMOURS & COMPANY, INC.
GRASSELLI CHEMICALS DEPARTMENT
WILMINGTON, DELAWARE

DU PONT

Birmingham • Boston • Charlotte • Chicago • Cincinnati • Cleveland • Detroit • Los Angeles • Milwaukee
New Haven • New Orleans • New York • Philadelphia • Pittsburgh • Rensselaer • San Francisco • St. Louis • St. Paul
Represented in Canada by CANADIAN INDUSTRIES, LTD., General Chemicals Division, Montreal and Toronto

JUST IN TIME FOR A BANNER SEASON!

Felton's *new* Tested

Perfume for "Para."

Paraperfume No. 18 is the result of many months of painstaking effort to develop the ideal odor for perfuming Paradichlorbenzene.

Perfume No. 18 meets all the specifications the manufacturer of "Para" products has been seeking for years—complete coverage, pleasant clean scent, lasting and without change until the final crystal has evaporated, entirely soluble in "Para," no discoloration, and unusually economical in cost.

From every angle Paraperfume No. 18 is a sales winner! There's still time to use it to improve this season's products . . . so

WRITE AT ONCE FOR SAMPLE!

Boston, Mass
80 Boylston St.

Sandusky, Ohio
1408 W. Market St.

New Orleans, La.
Baltar Bldg.

Chicago, Ill.
1200 N. Ashland Ave.

Salt Lake City, Utah
2225 S. 5th St., East

Philadelphia, Pa.
200 So. 12th St.

FELTON Quality

FELTON CHEMICAL COMPANY, INC.

603 JOHNSON AVE. BROOKLYN, N. Y.

Manufacturers of AROMATIC CHEMICALS, NATURAL DERIVATIVES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS.

Los Angeles, Calif.
4727 W. Washington Blvd.

San Francisco, Calif.
707 Kohl Bldg.

St. Louis, Mo.
4910 W. Pine Blvd.

Denver, Colo.
1729 Arapahoe St.

Montreal, P.Q., Can.
353 St. Paul St., W.

Toronto, Ont., Can.
137 Wellington St., W.

Do you sell to

SANITARY SUPPLY HOUSES?

If part of your market is among firms in the sanitary chemical industry which cater to large consumers of soaps and sanitary products--firms supplying buildings, institutions, clubs, hotels, laundries, industrial organizations, etc.,—then you can advertise in *Soap & Sanitary Chemicals* to considerable advantage. If you specialize in selling bulk or private brand soaps of any kind, disinfectants, insecticides, polishes, floor products, moth preventives, deodorants, etc., then *Soap & Sanitary Chemicals* is your advertising medium. Base soaps and other partly finished products can also be sold through this publication as can all types of sanitary accessories—mops, brushes, metal receptacles, floor scrapers, mopping tanks, etc.

If you want to find out who advertises these bulk and private brand materials now, look on page 131 for a complete list. Then ask us for more information, specifying the products which you are most interested in selling in larger quantities.

SOAP *and Sanitary Chemicals*

254 WEST THIRTY-FIRST STREET

NEW YORK CITY

GELSAVO

Essentially a Jasmin Absolute type for soap perfumery

GELSAVO has been developed to fill the need for a product which the soap perfumer could depend upon to give a fine true jasmin character in any type of soap. GELSAVO is destined to become as indispensable to soap perfumery as is Jasmin Absolute to fine perfumery. GELSAVO is universally valuable in the creation of all bouquet and floral notes. We ask that you do not judge it by its low price. We honestly believe that GELSAVO will be of definite interest to all soap perfumers. GELSAVO is priced at $3.00 per lb.

VAN AMERINGEN-HAEBLER, INC.

315 FOURTH AVENUE, NEW YORK CITY

SUDSING POWER IS SELLING POWER!

USE MORE CYANAMID TSPP



Research is conducted on modern lines with up-to-the-minute equipment in the Stamford Research Laboratories of the American Cyanamid Company.

Cyanamid is prepared to meet the growing demands of the soap industry for Tetra Sodium Pyro Phosphate. Your orders for this new sales creating ingredient, and for the other soap and cosmetic ingredients listed below, will receive prompt attention.

TRI SODIUM PHOSPHATE
ALUMINUM SULPHATE
SODA ASH
CAUSTIC SODA
K. & M. MAGNESIUM CARBONATE
K. & M. MAGNESIUM OXIDE
MURIATIC ACID
SULPHURIC ACID
ZINC STEARATE
AEROSOL* WETTING AGENTS
WAXES

*Trade-mark of American Cyanamid & Chemical Corporation applied to wetting agents of its own manufacture.

American Cyanamid & Chemical Corporation
30 ROCKEFELLER PLAZA, NEW YORK, N. Y.

A DISPENSER CAN EITHER HELP..



Do you want to see literature describing our 33 different models?

● The thousands of new grills, bars, lunch rooms that are opening everywhere need Liquid Soap, Dispensers, Disinfectants and other Clifton Products. Packed in drums or cans for the wholesale trade; attractive labels and leaflets ready for your imprint.

●

OR HINDER YOUR SALES of LIQUID SOAP

• THE DUODEK SOAPER

will give your customers year in and year out service. When it comes to ability to take punishment the DUODEK doesn't have to take its hat off to machines costing two and three times as much! There are thousands of DUODEKS installed that are giving 100% satisfaction today as they were twelve years ago. The answer is simple: DUODEK has NO springs or intricate parts to wear out, weaken or clog. A promise: You won't miss a reorder on Liquid Soap due to dispenser breakdown, if you furnish DUODEKS!



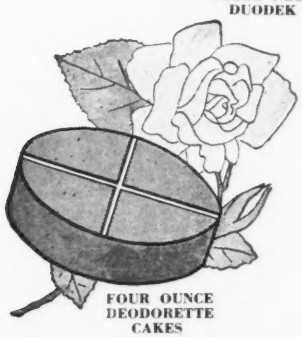
FRAGRANTAIRE BLOCKS AND CONTAINER



TILTYPE SOAPER



GOOSE NECK DUODEK



FOUR OUNCE DEODORETTE CAKES

CLIFTON CHEMICAL CO., INC.
CLIFTON BUILDING, 246 FRONT STREET, NEW YORK CITY
"Quality Sanitary Products Since 1912"

FILL IN THIS COUPON and MAIL TODAY

Clifton Chemical Co., Inc.,
246 Front Street, New York, N. Y.

Please ship ..... dozen DUODEKS at $11.40 per doz.

Also please quote on the following items we have checked:

☐ Semi Castile Liquid Soap	☐ Deodorizing Cakes and Blocks	☐ Dazzle Metal Polish
☐ Liquid Soap Base	☐ Deodorizing Block Containers	☐ Oil Soap
☐ Bar Oil	☐ Coal Tar Disinfectant	☐ Shampoo Liquid and Base
☐ Liquid Floor Cleanser	☐ Pine Tree Disinfectant	☐ Shaving Cream
☐ Silver Polish Paste	☐ Rub-No Wax	☐ Furniture Cream

(NAME) .....

(ADDRESS) .....

There are 2 WAYS to buy ADVERTISING SPACE

1 The HAPHAZARD WAY
by rumor, guesswork, and hasty judgment

2 The AUDITED WAY
by the facts presented in ABC REPORTS



TIME was when buying advertising space seemed like groping in the dark. With no facts to serve as guide through the mysteries of circulation, you had to rely on rumor and hearsay. You had to pick your papers by guess-work . . . and hope for the best results as far as sales were concerned.

That day is past. Discerning advertisers now buy space with as sound a basis of fact as they buy a ton of coal or a dozen of eggs.

The source of this enlightenment is the A.B.C. report—the complete official, audited report of circulation facts. A.B.C. reports reveal and analyze NET PAID CIRCULATION—how large it is, where it is, how it was secured.

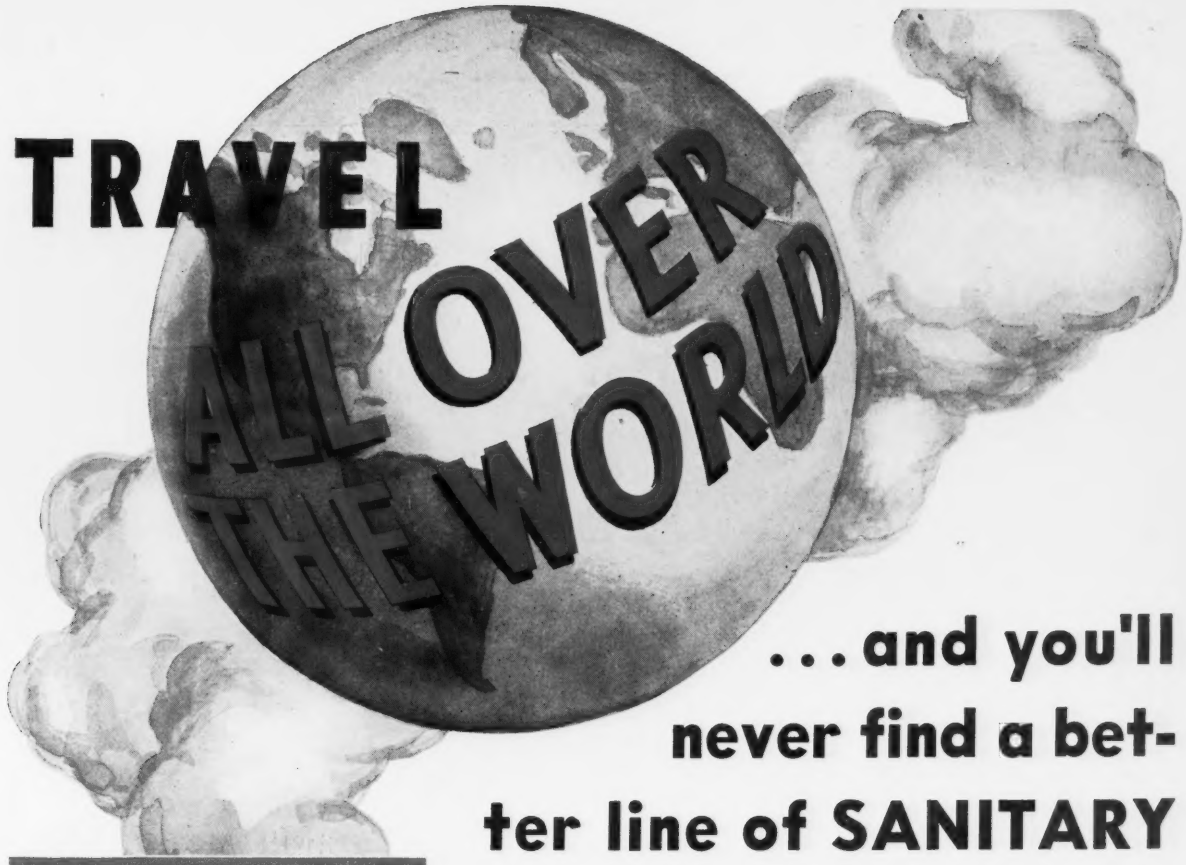
It is your insurance that you will get what you pay for. It protects the buyer and the honest publisher. It is made possible by over 2000 publishers, advertisers and advertising agencies. Together they provide you with this insurance policy. Use it. It costs you nothing. It may save you much.

We will be glad to give you a copy of our latest A.B.C. report, containing the facts by which you can judge the value of this paper.

SOAP and SANITARY CHEMICALS *An A. B. C.—A. B. P. PUBLICATION*

A.B.C. = Audit Bureau of Circulations = FACTS as a yardstick of advertising value

TRAVEL ALL OVER THE WORLD



. . . and you'll never find a better line of SANITARY SUPPLIES than is made by Davies-Young

OIL SOAPS • COCONUT BASE SOAPS • LIQUID BASE SOAPS • SCRUBBING SOAPS • WAXES • POLISHES • FLOOR FINISHES • DISINFECTANTS • INSECTICIDES • DEODORANT BLOCKS

All produced under Laboratory Control . . . which assures UNIFORMITY

Sold ONLY through Jobbers

THE DAVIES-YOUNG SOAP CO.
Dayton, Ohio

Copyright, 1936, By The Davies-Young Soap Co.

INTERESTING USES OF ALKALIES



PUTTING THE GLOSS ON ORIENTAL RUGS

THAT BRILLIANT LUSTRE which adds to the rich charm of modern oriental rugs comes not from some occult far-eastern process, but from a washing treatment which importers give the rugs before they are shown to retailers. Although the exact nature of this treatment is something of a trade secret, it is generally known that the usual formula contains a mild solution of Caustic Soda. The strength varies from ½% to 1% according to the type and pattern of the rug. Care must be taken to avoid too strong a solution or too lengthy an immersion, so as not to weaken the fibres or fade the colors.

There are many secret processes involving the use of Caustic Soda and other alkalies, but it's no secret that COLUMBIA Caustic Soda, Soda Ash, Sodium Bicarbonate, Modified Sodas, Liquid Chlorine and other products are as pure and uniform as human skill and the most modern production equipment can make them. No matter how vital these qualities are in the applications of these alkalies in the glass, paper, chemical, textile, food, drug and other industries, you are playing safe when you specify COLUMBIA. Equal care is taken, also, in the cleanliness of COLUMBIA containers and in the promptness and accuracy of deliveries to all parts of the country.



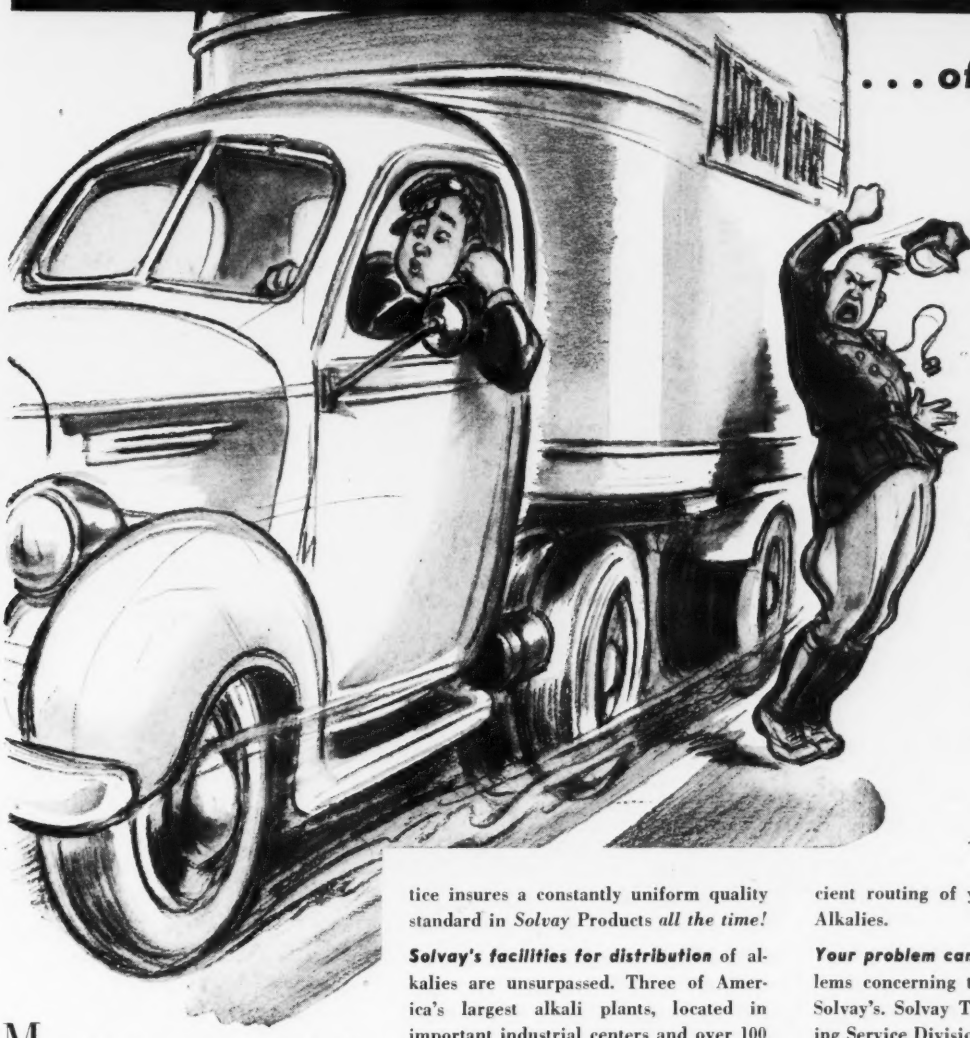
COLUMBIA

SODA ASH • CAUSTIC SODA • SODIUM BICARBONATE • • •
MODIFIED SODAS • LIQUID CHLORINE • CALCIUM CHLORIDE

THE COLUMBIA ALKALI CORPORATION
BARBERTON, OHIO

NEW YORK • CHICAGO • BOSTON • ST. LOUIS • PITTSBURGH • CINCINNATI • CLEVELAND • MINNEAPOLIS • PHILADELPHIA

HIT OR MISS METHODS



. . . of ordering your alkalies do not result in savings

More often than not, such methods add a *hidden cost* . . . a cost that is hard to trace in the manufacture of your products.

WHY should this be so? Suppose, for instance, that you do *not* obtain *all* the following advantages when you buy alkalies. A lack of any one of these *might* cost you money.

The right type of product for your job. Solvay Alkalies are made in various forms to meet specific manufacturing requirements. The Solvay Products Book gives you complete data on types and strengths of Solvay Products.

A product that is always uniform—every time you receive it. The most modern and scientific manufacturing practice insures a constantly uniform quality standard in *Solvay* Products *all the time!*

Solvay's facilities for distribution of alkalies are unsurpassed. Three of America's largest alkali plants, located in important industrial centers and over 100 stock points assure prompt delivery, efficient routing of your orders for Solvay Alkalies.

Your problem can be solved. Your problems concerning the use of alkalies are Solvay's. Solvay Technical and Engineering Service Division is maintained *to help you get* the most from your alkalies.



SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Company

40 RECTOR STREET NEW YORK, N. Y.

BRANCH SALES OFFICES:

Boston · Charlotte · Chicago · Cincinnati · Cleveland · Detroit · Indianapolis
New Orleans · New York · Philadelphia · Pittsburgh · St. Louis · Syracuse

SOLVAY SALES CORPORATION, 40 Rector St., New York, N. Y.

Please send me a copy of the Solvay Products Book which will give complete information on all Solvay Products for manufacturing and repackaging.

*Name*_____

*Firm*_____

*Address*_____

*City*_____ *State*_____ AJ-7



The refreshing scent of Pine Forests has always held an appeal to the public.

A Pine soap or bath preparation so perfumed recalls vacation days. Gives a sensation of cleanliness and health.

Agfa

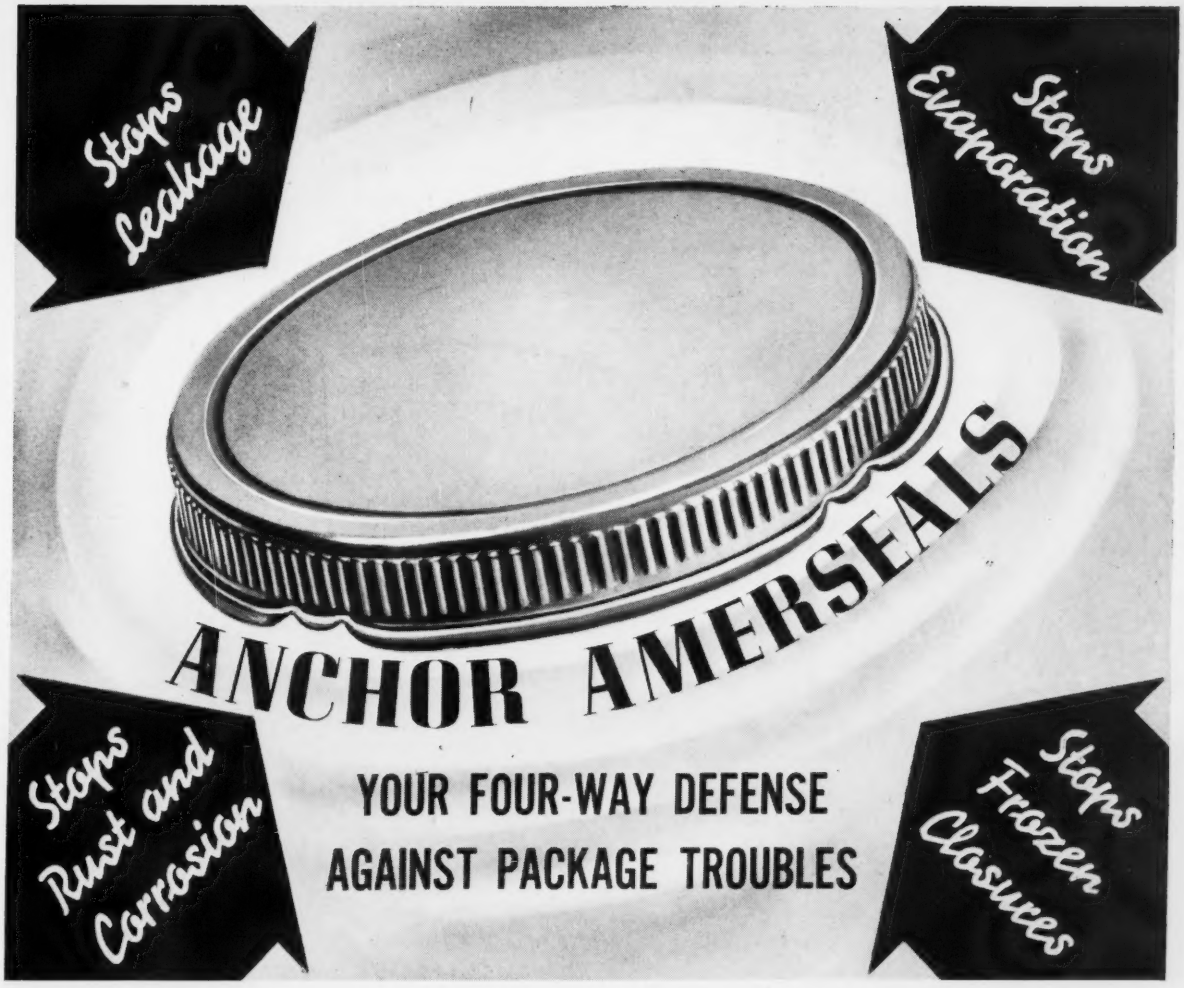
For exquisite Pine Odors for Soaps and Cosmetics, the following are ideal bases:

AGFA ISO BORNYL ACETATE
PINE BOUQUET No. 1188
PINE BALSAM No. 2728

AROMATICS DIVISION

GENERAL DRUG COMPANY

170 Varick Street, New York, N. Y.
Transportation Bldg., Los Angeles, Cal.
9 South Clinton St., Chicago, Ill.
907 Elliott St. West, Windsor, Ontario



PACKAGE failures and difficulties, even though infrequent, are always serious. They cause complaints and returns, dissatisfaction, loss of good-will, of customers and worst of all, loss of profits.

LEAKAGE is a common cause of trouble . . . except with Anchor Amerseal Caps. In application the lugs of the cap engage divided threads in the glass finish and draw the cap down to form a uniformly air-tight, leak-proof contact around the complete circumference of the container.

EVAPORATION is another danger to guard against . . . but the unusual sealing efficiency of Anchor Amerseal Caps keeps volatile elements in and moisture out. Should excess internal pressure develop the cap will vent and reseat itself.

RUST AND CORROSION of closures not only affect the appearance of your package but of even more importance, they affect its sale. The absence of threads in Anchor Amerseal Caps avoids one prevalent cause of corrosion in that none of the product can become trapped in the threads and remain there to attack gradually through microscopic pinholes or cracks the protective coating of the metal. Furthermore the skirt of the cap is entirely open so that any spillage of a corrosive product will evaporate or may be washed off.

FROZEN CLOSURES is an ailment frequently encountered with continuous thread types of caps, particularly on syrups and other sticky products. Because Anchor Amerseals make contact at only a few points around the container finish and these on the under side of the short divided glass threads, contact is easily broken and the cap removed with perfect ease . . . a mere quarter-turn of the wrist.

In addition Anchor Amerseal Caps offer you a number of other equally important advantages which we would like to tell you more about. May we? ANCHOR CAP & CLOSURE CORPORATION, Long Island City, N. Y. and Toronto, Canada. Closure Division of Anchor Hocking Glass Corporation.

ANCHOR HOCKING GLASS CAPS
-an unbeatable combination

It would pay you to use

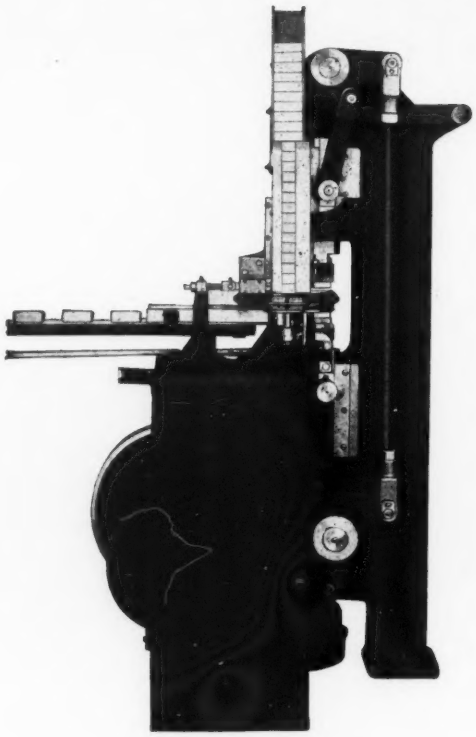
JONES TOGGLE PRESSES

The longer soap cakes, either toilet or laundry, are under pressure the better their finish.

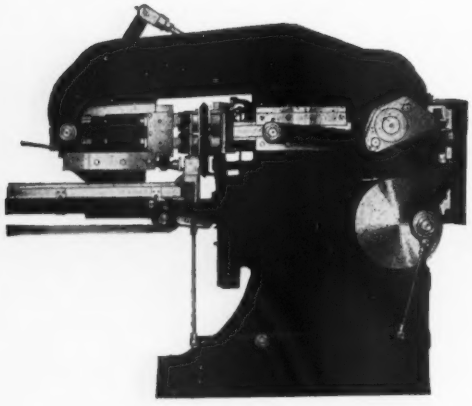
All New Types of

JONES PRESSES

are toggle operated and hold the soap under pressure twice as long as earlier models.



Type ET Toilet Soap Press



Type K Laundry Soap Press

Many soap makers are replacing earlier models with them because of their far better pressing, greater production, economy in die wear and, last but not least, because they operate

Without Noise or Vibration

R. A. JONES & COMPANY, INC.

P. O. BOX 485 CINCINNATI, OHIO

The Standardized CONSTANT MOTION CARTONER packages bottles, jars, tins, collapsible tubes and many other articles. It feeds, folds, and inserts direction sheets and corrugated board liners with the loads.

As the Editor sees it..

A MANUFACTURER discovered that in a few cases his toilet soap appeared to be effective in eliminating pimples on the human skin. He asked our advice about mentioning this fact on the wrapper. Looking him squarely in the eye, we asked in measured tones if he realized the seriousness of his proposal, if he deliberately wanted to put his head in the lion's mouth. Did he appreciate that if he mentioned "pimples" just so much as once that his product was no longer a soap, but immediately became a drug? And did he realize what this meant? Did he? At any rate, after an explanation he decided that it would be easier just to sell his soap as in the past to plain people without pimples.



FORMULA disclosure on a package label has always been opposed almost universally by manufacturers. They maintain that it can be of little or no value as a means of protecting the public against dangerous products or fraud mainly because the public as a whole does not understand the significance of most ingredients. Manufacturers claim that competitors and potential competitors would be those most benefitted by disclosed formulas. Consequently, it was with considerable interest that we heard Dr. Walter H. Eddy, technical director of Good Housekeeping Institute, state in a recent address before the National Association of Insecticide & Disinfectant Manufacturers: "I am frankly a little skeptical as to the significance of ingredients to the average user of a product."

For a long time, we have shared the skepticism of Dr. Eddy as to the practical value of a statement of formula on a label as a measure of public protection. By and large, the users do not have the necessary knowledge to appreciate the true meaning of formulas as they might appear. To us, it appears almost akin to putting up a warning sign in a foreign language.

If lawmakers consider formula disclosure necessary, — with which contention we heartily disagree,—at least let it be intelligent formula disclosure, not to the public at large on a label, but to the commissioner of agriculture or state chemist or other law enforcement official qualified to evaluate the ingredients and to appreciate their significance.



OF WHAT does imitation consist in the field of toilet goods packaging and styling? How closely can one firm approximate another's general merchandising theme without being guilty of unfair competition? These are questions which will be fought thru the courts again in the current action involving one firm which has successfully merchandized a new line of soaps and toilet goods over the past two years and another firm which, surprisingly enough, hit upon a very similar general sales theme for its

It would pay you to use

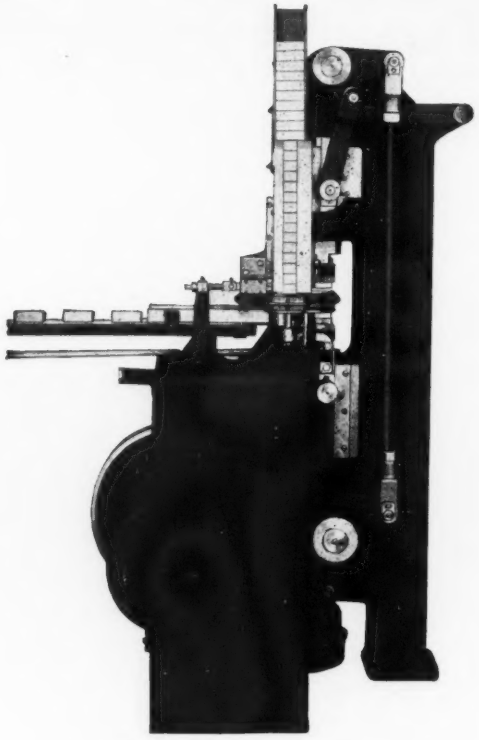
JONES TOGGLE PRESSES

The longer soap cakes, either toilet or laundry, are under pressure the better their finish.

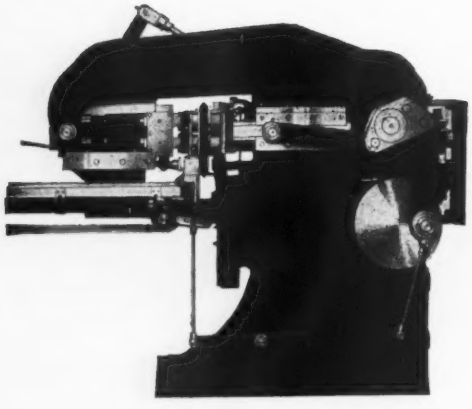
All New Types of

JONES PRESSES

are toggle operated and hold the soap under pressure twice as long as earlier models.



Type ET Toilet Soap Press



Type K Laundry Soap Press

Many soap makers are replacing earlier models with them because of their far better pressing, greater production, economy in die wear and, last but not least, because they operate

Without Noise or Vibration

R. A. JONES & COMPANY, INC.

P. O. BOX 485 CINCINNATI, OHIO

The Standardized CONSTANT MOTION CARTONER packages bottles, jars, tins, collapsible tubes and many other articles. It feeds, folds, and inserts direction sheets and corrugated board liners with the loads.

As the Editor sees it..

A MANUFACTURER discovered that in a few cases his toilet soap appeared to be effective in eliminating pimples on the human skin. He asked our advice about mentioning this fact on the wrapper. Looking him squarely in the eye, we asked in measured tones if he realized the seriousness of his proposal, if he deliberately wanted to put his head in the lion's mouth. Did he appreciate that if he mentioned "pimples" just so much as once that his product was no longer a soap, but immediately became a drug? And did he realize what this meant? Did he? At any rate, after an explanation he decided that it would be easier just to sell his soap as in the past to plain people without pimples.



FORMULA disclosure on a package label has always been opposed almost universally by manufacturers. They maintain that it can be of little or no value as a means of protecting the public against dangerous products or fraud mainly because the public as a whole does not understand the significance of most ingredients. Manufacturers claim that competitors and potential competitors would be those most benefitted by disclosed formulas. Consequently, it was with considerable interest that we heard Dr. Walter H. Eddy, technical director of Good Housekeeping Institute, state in a recent address before the National Association of Insecticide & Disinfectant Manufacturers: "I am frankly a little skeptical as to the significance of ingredients to the average user of a product."

For a long time, we have shared the skepticism of Dr. Eddy as to the practical value of a statement of formula on a label as a measure of public protection. By and large, the users do not have the necessary knowledge to appreciate the true meaning of formulas as they might appear. To us, it appears almost akin to putting up a warning sign in a foreign language.

If lawmakers consider formula disclosure necessary, — with which contention we heartily disagree,—at least let it be intelligent formula disclosure, not to the public at large on a label, but to the commissioner of agriculture or state chemist or other law enforcement official qualified to evaluate the ingredients and to appreciate their significance.



OF WHAT does imitation consist in the field of toilet goods packaging and styling? How closely can one firm approximate another's general merchandising theme without being guilty of unfair competition? These are questions which will be fought thru the courts again in the current action involving one firm which has successfully merchandized a new line of soaps and toilet goods over the past two years and another firm which, surprisingly enough, hit upon a very similar general sales theme for its

line which appeared on the market just a few months later.

To us it is rather reminiscent of the "Lifebuoy" case which involved an almost unique sudden awakening of interest on the part of dozens of soap makers in a red, octagonal cake of soap, having a carbolic odor. They were quick to recognize the old truism that "nothing succeeds like success" and were not at all ashamed to admit their own sterility of ideas by springing quickly to imitate an accepted best seller. In the present case the issues are not nearly so clearly drawn, and it is uncertain what the eventual court decision will be. Certain it is, though, that the only way to be sure of not being imitated is to bring out exclusively lines which turn out to be flops. Somehow, no one ever seems to come close to the line in imitating them.



AT THE recent meeting of the Toilet Goods Association in New York, sharp criticism was leveled at the trade press, especially the drug and allied trade press, for publishing rather completely the news of complaints and orders of the Federal Trade Commission issued against manufacturers in the field of drugs, cosmetics, and the like. Some manufacturers maintained that the initial citations should be "soft pedaled," or in some manner supressed until the final decision and disposition of the cases. They pointed out that in most instances, the complaint sounds very ominous and when published alone without the other side of the story, creates a wrong impression which does harm to the manufacturer, and is eminently unfair. Furthermore, many complaints are really of a minor nature which may be thrown out or compromised, —but seldom does this latter rate much in the way of news.

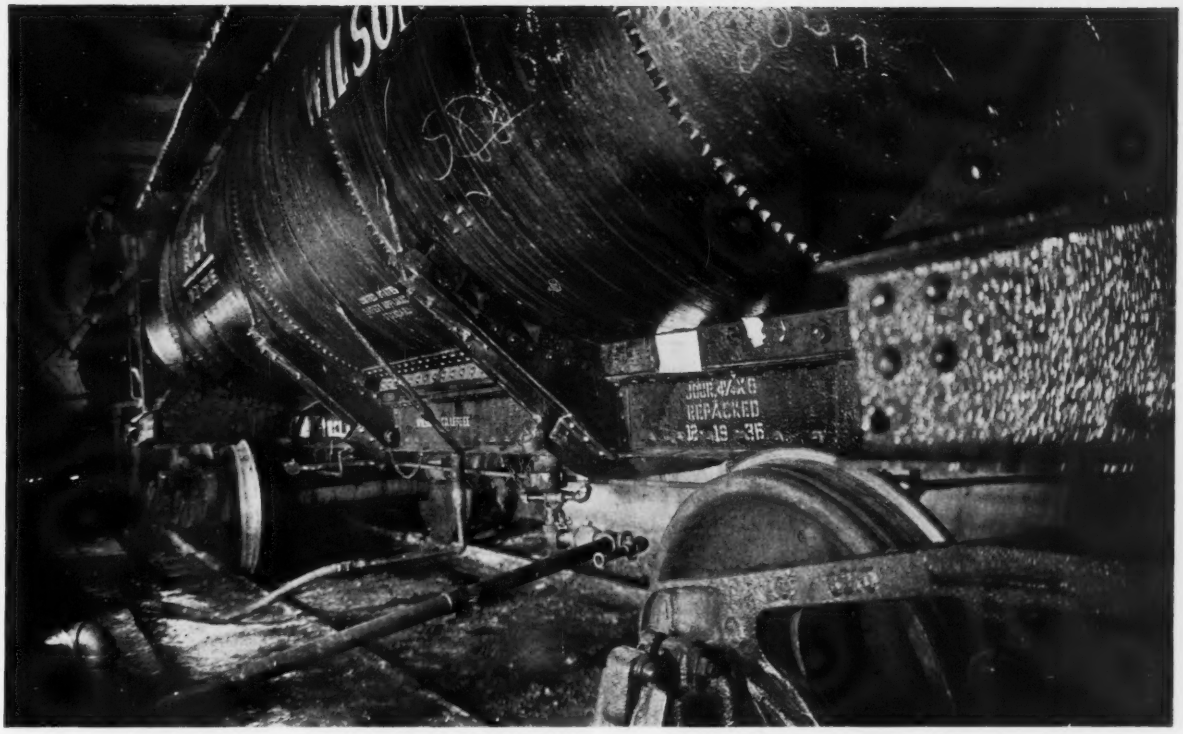
Now, the mere mention of "soft pedaling" gave the boys of the press, trade and otherwise, a wonderful opportunity to strut their stuff, to stand up on their hind legs, wave their arms, and yell about the "freedom of the press." Their businesses were not being hurt by obviously unfair emphasis in a sequence of events,—why shouldn't they howl?

But, this is beside the point. We return to the subject to state that we believe these manufacturers are and have been getting a raw deal, and that there is much justice and fairness in what they are driving at. When they are painted black on the front page in twenty-four point type in June, they don't feel that it is fair to be painted white again six months later on the back page in eight point type, or not at all. And this is just the way it works out in practical trade journalism. Although we don't care too much for any "soft pedal" idea, we agree with the manufacturers that they have a just kick coming.

Along with other papers, we have undoubtedly played a part in making this injustice possible,—but it is our belief that the fault, in part at least, lies in the publicity department of the Federal Trade Commission which too often fails to advise the outside world when a respondent is the beneficiary of a favorable decision. And likewise, why are manufacturers so hesitant in keeping the trade press informed promptly of their side of the picture?



TALLOW has these many years been the raw material backbone of the soap industry, but today its position is more prominent than ever. In 1938, out of roughly a billion-and-a-half pounds of fatty materials used in the soap kettle, almost half was tallow. And with the present tax set-up, we cannot see that it is likely to lose any ground in the near future.



The Trend in Consumption of SOAP KETTLE FATS

A MARKED upward trend in tallow consumption at the soap kettle over the past eight or nine years is the outstanding fact developed from a study of fat and oil variations in soap manufacture since 1930. While the consumption of all fats for soap manufacture showed a net gain of slightly over five per cent for the eight years, tallow consumption was 34 per cent greater in 1938 than it was in 1931. Of a total of a billion-and-a-half pounds of oils and fats used in soap in 1938, seven hundred million pounds were tallow. During the same period, coconut oil consumption remained practically static excepting for sharp drops in 1935 and 1937. About half as much palm oil was used by American soapers in 1938 as was used in 1931.

Variations in the consumption of soap kettle fats have been quite closely tied up with the adoption of the excise tax on various imported vegetable oils in 1934, and its extension in 1936 by the Bailey Amendment to include animal fats, fatty acids, and other fatty materials. The effects of these processing taxes are shown in many of the variations in the accompanying chart of fat and oil consumption. The figures are those of the Department of Agriculture.

Above: Unloading a tank car of tallow. Consumption of tallow at the soap kettle reached new heights in 1938, over 700 million pounds being used.

The use of tallow at the soap kettle in 1931 was 523,714,000 lbs., while in 1938 it had jumped to a new high of 702,267,000. Two significant facts may be noted in this upward trend. In 1934, the use of tallow jumped sharply, about 150 million pounds. An unusual increase unless it is noted as the year in which the excise tax was imposed on various imported oils. Tallow was not affected by this legislation, but coconut oil was. As a result, there is noted a sharp decrease in consumption of the oil and the substitution of tallow at the kettle. However, in 1936, imported tallow did not escape the Bailey Amendment and showed a sharp decline the following year, its

place being taken by cheaper materials. It recovered with a sharp upward swing in 1938, however, a year marked by an increase in the domestic production.

Coconut oil maintained a steady trend through the eight years. In 1931, 340 million pounds were consumed, while in 1938 the figure was 342 million. Twice, though, the consumption fell off, in 1935 and in 1937. The 1935 decline followed processing tax legislation on this oil. In 1935 the figure dropped to 229,711,000 lbs. from the 341,124,000 lbs. of the previous year, and in 1937, only 252,241,000 lbs. were consumed as compared with 307,376,000 in 1936. The chief factor which accounted for the decrease in 1937 was the sharp increase in the price of coconut oil which moved from four to nine cents in a comparatively short time. The oil, however, was not long in returning to normal levels, which was probably helped by a good crop of copra in the Philippines the following year.

The consumption of palm oil by the soap industry has declined steadily since 1931. The main reason is that the better qualities of the oil now imported make it suitable for wide use in edible products. Up until 1935 this oil had shown a steady upward trend, which coincided with a rising tide in the sale of the so-called "health" soaps. As an aftermath of the excise tax in 1934, however, consumption fell off considerably in 1935, a decline amounting to approximately 67 million pounds. It has remained at the lower level since then, with the exception of 1937, when the tax on tallow made the use of palm oil preferable. In that year, consumption of palm oil moved up from 78 million pounds to 141 million. Other materials soon gained their normal position and palm oil again dropped to its low level.

The raw material showing the widest variation in amounts consumed by the industry from year to year is palm-kernel oil. Its trend is similar to coconut oil in the fact that after eight years palm-kernel is being consumed in almost the same quantities as in 1931, when a consumption of 28,035,000 lbs. was reported. In 1938, 29,498,000 lbs. was consumed. In those eight years, however, the figure reached a low in 1932 of 3,565,000 lbs. and a high in 1937 of 111,514,000 lbs. The high figure in 1937 may be traced to two causes; first, the sharp increase in imports of palm and palm-kernel oil in the latter half of 1936, and second, the sharp increase in the price of coconut oil in 1937. Both had their effect, with the palm oil being substituted for coconut oil during 1937.

Olive foots consumption at the soap kettle was fairly even from 1931 through 1935, but a drop took place in 1936 and has continued downward since that time. Conditions in Spain have no doubt been the main factor in this decline. With quieter conditions now prevailing in that country, importers look forward to a return to normal in the consumption of this material.

In 1931, the soap makers in the United States used only 3,816,000 lbs. of soybean oil, and in 1936 had increased its consumption to only 5,023,000 lbs. During the past two years, the amount of this oil used in soaps has more than doubled. The figure for 1937 stood at 10,274,000 lbs. and increased to 10,897,000 in 1938. A bumper crop in those two years probably accounted for the upward swing, but it may also be due to the increasing recognition of properties of this oil which makes it particularly suitable for potash oil soaps.

From 1931 through 1934, the amount of grease used by soapers was more than 150 million pounds annually. To a considerable extent, this marked increase was due to the wholesale slaughter of hogs in 1933 and 1934 under Government supervision. With the hog population sharply reduced, grease production and consumption took a sharp drop in 1935, and since that time, the largest amount of grease used at the soap kettle in any one year has not been more than a hundred million pounds. With a drop in lard and grease output, resulting higher prices were undoubtedly a contributing factor in cutting consumption by soapers.

With the adoption of the excise tax in 1934, the domestic whale and fish oil industry received a temporary stimulus. However, it was not until the passage of the Bailey Amendment in 1936 and its effective barring out of foreign tallow and other animal fats, that a steady increase in the consumption of whale oil in the soap kettle got under way.

Looking back over the fat and oil consumption figures, and the effects of the excise tax, it would appear that one or two significant conclu-

(*Turn to Page* 69)

Fats and Oils	1931 (1000 lb.)	1932 (1000 lb.)	1933 (1000 lb.)	1934 (1000 lb.)	1935 (1000 lb.)	1936 (1000 lb.)	1937 (1000 lb.)	1938 (1000 lb.)
Tallow	523,714	549,186	508,824	662,858	663,002	660,020	613,509	702,267
Coconut oil ..	340,503	353,527	322,264	341,124	229,711	307,376	252,241	342,982
Palm oil.....	172,228	168,009	187,962	154,704	87,311	78,453	141,358	91,642
Grease	129,403	143,724	124,743	142,782	98,086	98,714	94,247	96,356
Fish oils.....	58,426	49,091	52,168	64,548	109,970	128,044	123,879	79,874
Whale oils...	68,669	48,944	44,895	33,996	28,440	32,603	65,130	66,080
Palm-kernel oil	28,035	3,565	6,278	16,516	37,173	26,443	111,514	29,498
Olive foots...	38,970	30,877	31,878	30,411	31,507	23,965	17,984	15,013
Soybean oil..	3,816	5,571	4,235	1,354	2,549	5,023	10,274	10,897

After reading all about how to buy soap, Mrs. T. Gwathmey Frothingham takes off down Fifth Avenue en route to the semi-annual soap sale at Kimbel's.



SOAP in the PUBLIC PRINTS

By Preston Mack

FOR some reason or other, soap gets a lot of attention in the public prints. By public prints, we mean the daily press, the ladies' magazines, the so-called consumers' magazines and bulletins, and other places where those of us who can read are enlightened on the doings of the day. Why all these writers should of late years pick on soap, we are at loss to understand. But the fact remains that they do,—and as a consequence, the manner and method used by Mrs. Murphy in washing John's overalls has become extremely important from the journalistic angle. Likewise, how and why silk stockings are washed, and the hair shampooed, and the body bathed, including scrubbing well behind little Jimmy's ears, are right in there grabbing off editorial attention along with the latest bribed judge and sex murder.

Probably there are two or three good reasons why soap has been on the receiving end of more attention from our editors and columnists of late. Almost everybody uses soap in one form or another, and pretty much all housewives buy it upon occasion. The percentage of readers who are interested in soap is likely to be large,—and the editors have just found this out. And then, there is the money spent by large soapers for advertising. It runs into the big numbers,—and we suppose that such advertising expenditures must warrant now and then some attention in the news pages.

Then we think of organized publicity on soap and cleanliness from authoritative sources, which information is invariably accurate. But, it carries the stigma of a publicity release, and hence, by our often violently independent editors and columnists, it must be viewed with suspicion. Nevertheless, a lot of the editors who are not so suspicious, use it, and it makes good reading. But not for the independents, be they magazine, bulletin, column, or news writers. For them, it is a case of going right out into the field, right to the sources of information,—sometimes it must be the corner druggist or the bartender over in Jake's place,

"*Fortune* said anyone could make soap on their kitchen stove, and I'll do it or bust. I must remember to send a cake of it to the editor. He'll be thrilled!"

—and finding out the facts for themselves before they write.

And thus we see how it is that soap finds itself projected into the news with frequent regularity. And furthermore, for some strange reason, soap is always the occasion for an editor to be funny, especially in writing humorous heads for his stories. Why soap is any funnier than candy, or shoes, or trolley cars, or what not, we have never been able to see. But quite obviously, soap is funny and we are wrong by dint of numbers if nothing else. It has been universal editorial practice for forty years that when soap breaks into the news, it is a "clean story" or a "nice clean business." We do not know how many years back people quit guffawing at these clever quips, but we do know that the editors never miss a trick in dragging them in by the tail.



BUT all this is aside from the discussion. How, why and when soap gets into the public prints is not the subject before us. What we want to consider here is the kind of things which they are writing about soap in the magazines and elsewhere. Like writings on almost any subject, they fall into a number of classes, starting with excellent and grading down all the way to just everyday tripe.

As far as we can judge, the columnists are the worst offenders, particularly those who indulge in writings upon the important subjects of beauty and health. Our beauty columnists write some great things about soap, among which are warnings against soaps made with lye. They tell how certain soaps will burrow into the pores of the human skin.—very gently, of course,—and dig out the pore-clogging dirt,—while other soaps will merely slide off the skin without even a side glance at the pores as they pass by. And to wash the hair with "ordinary toilet soap" is to invite disaster.

The newspaper doctors who run these ever-popular health columns, are likewise common offenders when they cross the line of fact and wander into the field of fancy. Quite obviously, some of the good doctors should review their freshman chemistry before undertaking to write for public consumption. But because soap is a widely used substance closely associated in the public mind with bodily health, they evidently feel that they cannot ignore the subject. What was perhaps the prize recommendation of one of these doctor-columnists not so long ago was the expressed wish that present-day soaps with their "lye content" could be run off the market and that we might return to making soap "in the good old way" on the kitchen stove as did our grandmothers. When a physician, supposedly educated at least slightly in the elementary facts of chemistry, would write and print such a statement over his name, is it any wonder that we have hinted upon occasion that the wide improvement in general soap quality over the past twenty years has been akin to throwing pearls to swine?

AND this statement by the writer-doctor calls to our attention an article about Procter & Gamble which appeared in *Fortune* a couple of months ago.—an article full of fancy pictures and two-dollar words, but withal a good one. We particularly liked the part which stated: "Soap is essentially a commodity that can be made on anyone's kitchen stove and the manufacturing processes are pretty well standardized throughout the industry. Making all due allowances for advertising claims, there are no enormous differences between comparable soaps put out by the different companies, and with all the units selling approximately the same product, the industry is intensively competitive."

And likewise, we might point out to *Fortune* that an automobile is also essentially a commodity that might be made in anyone's backyard from old pieces of wood and iron and four wheels, and that the resultant sedan would resemble a modern automobile just about as closely as a cake of soap "made on anyone's kitchen stove" would resemble a bar of almost any soap on the market. Also, the manufacturing processes for automobiles are pretty well standardized,—and making all due allowances for advertising claims, there are no enormous differences between comparable cars. And the same is true of carpet, glass, paper, cheese, and ladies' hats,—so why make soap manufacture look so easy?

A FEW months back, *Consumers' Union*, one of these consumer protective groups which issues a monthly bulletin, undertook to classify and give ratings to a hundred toilet soaps. A majority of the soaps tested were given a clean bill of health. They condemned all soaps containing "special ingredients" and also "hygiene soaps," the latter including *Lifebuoy* and certain pine and tar soaps. They stated that cresylic acid in a "hygiene" soap is a "substance which, dermatologists believe, should not be used on the skin, except when prescribed by a doctor." Don't dermatologists believe that nothing should ever be used on the skin except when prescribed by a doctor, especially a dermatologist? Come to think of it, how have the English skins stood the gaff all these years what with their wide use of "hygiene" and carbolated soaps, especially by the workers?

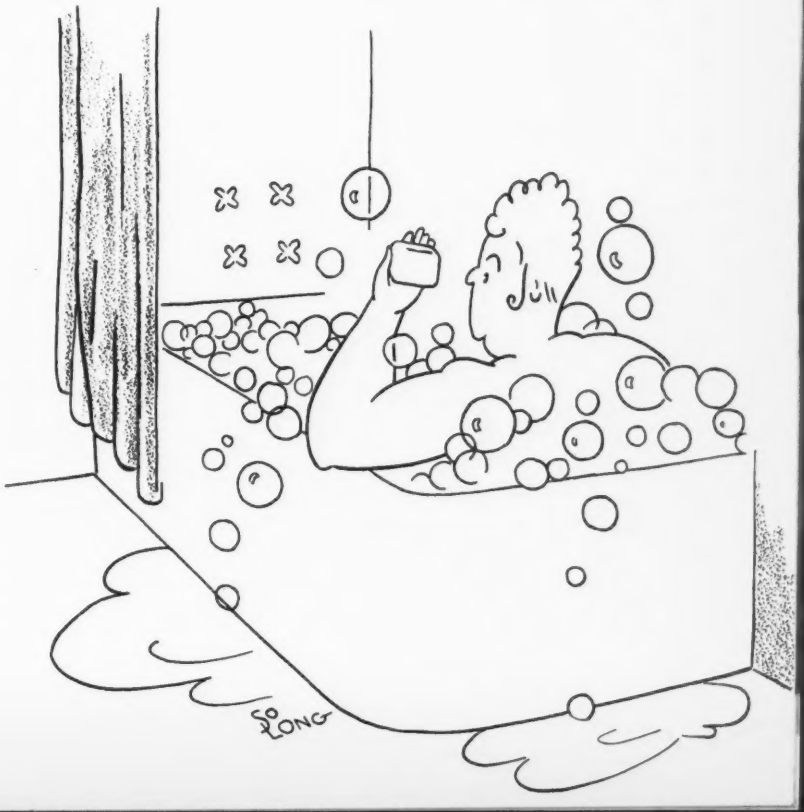
In going over the list of toilet soaps rated in this report, we note that the majority are little-known brands, mostly private brands put out by department stores and chains. Now if the editor of this report knows anything about how private brand soaps are bought, he should know that his list of accepted brands published today may be incorrect and obsolete tomorrow. Various and sundry soap manufacturers supply these stores with soap in a highly competitive market. Today, the Jones Soap Company gets the order for Casey's Department Store soap, and next month, Smith Soap may get the business. And the soap may vary, and does vary, and what is "acceptable" this month may not be next, and so forth. There is a constant switching about in sources of supply and in quality for the same private brand. Maybe a new list of "accepted" brands should be published every month.

THE real weakness in the advice which is given to soap buyers, not only in the bulletins to consumers, but in most of the material printed on how to buy soap, is the complete inability of the reader to make use of the advice. For example, this report says that the housewife should "make sure that the soap offered is really the same product as that which the store usually sells." In other words, watch out that some of these soaps offered at the special sales are not just an inferior soap put out for the sale. Further advice is "to buy good toilet soap as cheaply as you can find it. Price comparisons should be made on the basis of actual dry soap in the bar . . ." But how is the buyer to know a good soap, and how is he or she to determine total anhydrous soap?

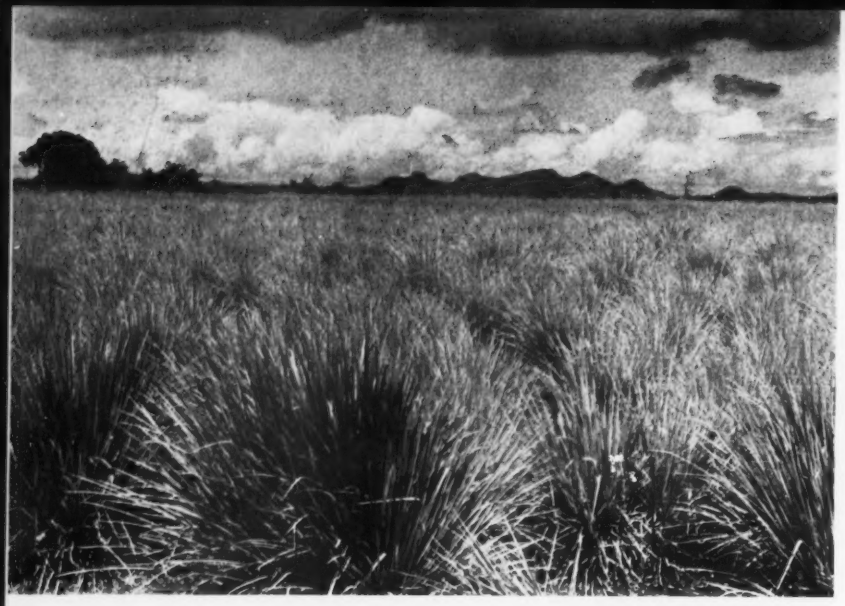
Imagine any housewife asking a clerk in a department store about the fatty acid content of any soap, or its free alkali. And the clerk answers: "Madam, this soap is guaranteed to contain 90 per cent anhydrous soap and not to exceed 0.02 per cent in free alkali. Its lauric acid content has been held to a minimum, sufficient to assure free lathering properties, but not high enough to irritate your lovely pink skin. I should estimate from a quick squint that its content of lauric acid is not higher than ten per cent. At six cakes for two-bits, it's a steal, and I suggest that you stock up while the stocking up is good."

And thus it goes. Writers

(*Turn to Page* 69)



"As I suspected, too high in coconut oil,—and I'll bet the free alkali is over one per cent. A woman can't even trust a cake of soap these days!"



OIL OF



Top: A large lemongrass plantation in Madagascar. Above: During the lemongrass harvest in Cochin. A native harvester. Note that he is carrying the sickle for cutting the grass on his head.

Opposite page, top: A native dealer in lemongrass oil in Cochin carries his stock on his head. Bottom: A native shop in Cochin where the distillers sell their oil.

OIL of lemongrass is one of the most important essential oils for the manufacturing of aromatic isolates as well as for direct use in the perfuming of soaps, cosmetics and all kinds of technical preparations. It is distinguished by its powerful and fresh lemon-like scent. The Cymbopogon grass (family of *Gramineae*) grows wild in many tropical countries; for instance, in East India (Malabar Coast), Ceylon, British and Dutch Malaya, French Indo-China, in the West Indies, Central and South America and in many parts of Africa. Nowadays only planted grass serves for distillation of oil of lemongrass, two main types of which are marketed commercially:

(1) The so-called "East Indian" lemongrass oil produced near the Malabar coast in the southwestern parts of British East India. This type of oil is distilled from *Cymbopogon flexuosus* Stapf (*Andropogon nardus* var. *flexuosus* Hack.). It contains about 75 per cent and more of citral and is soluble in 70 per cent alcohol. This is the main type of lemongrass oil, 300 to 350 tons of which have been produced yearly during the last few years. Distillation is carried out entirely by natives in primitive, small field stills.

(2) The so-called "West Indian" lemongrass oil. The name "West Indian" is only a commercial designation, the first experimental lots having been made in the West Indies. Today the bulk of this oil originates in Madagascar and the Comoro Islands. This type of oil is distilled from *Cymbopogon citratus* Stapf (*Andropogon nardus* var. *ceriferus* Hack.). If distilled according to modern methods of steam distillation, as in Madagascar and the Comoros, the oil contains a high percentage of aldehydes although the latter do not seem to consist entirely of citral. The main difference between the East Indian and the so-called "West Indian" lemongrass oil is the inferior solubility of the latter in 70 per cent alcohol. This is caused, especially in older oils, by the presence of polymerized myrcene. In regard to odor, the difference lies in a more pronounced methyl heptenone note, characteristic of the "West Indian" oil. Planting and distilling of this oil is done entirely on large estates, mainly European. Madagascar and the Comoros produce about 50 to 60 tons of oil yearly, the bulk of which is shipped to France.

Years ago much confusion existed regarding the botany of the two types of plants, until the investigation of A. Stapf[1] brought light on the market by establishing *Cymbopogon flexuosus* and *Cymbopogon citratus* as the mother plants of the East Indian and so-called "West In-

[1] *Kew Bulletin* 1906, 297.

LEMONGRASS

A survey of production, costs, marketing, quality factors in the producing areas

By Dr. Ernest Guenther

Fritzsche Brothers, Inc.



dian," respectively. A later worker, S. C. Hood,[2] while experimenting with growing and distilling Cymbopogon in Florida, assumed the existence of local subvarieties of *Cymbopogon citratus*. While the findings of A. Stapf undoubtedly are based upon true botanical facts, it is nevertheless possible that other reasons may contribute to the difference in the solubility of the East Indian and the so-called "West Indian" oils. The former are always distilled in small, native, direct fire stills of low pressure while the Madagascar and Comoro oils are produced in large steam stills by rapid direct steam distillation of high pressure. Furthermore, in East India the plant material is usually distilled right after harvesting, while in Madagascar and in the Comoros it is sometimes left in the fields for several days previous to distillation. Such practice might easily cause polymerization of the myrcene present in the so-called "West Indian" oils. S. C. Hood[3] observed that the solubility of oils distilled from dried grass decreased noticeably upon standing. Yet the mere presence of larger quantities of myrcene and other low-boiling constituents in the "West Indian" oils leads to the conclusion that the main difference between the two oils is a function of their botanical origin.

The following pages will give a detailed account of the writer's personal survey of lemongrass oil production undertaken in Madagascar and in the Comoros during September, 1937, and in British East India during September, 1938.



East Indian Lemongrass

ALTHOUGH *Cymbopogon flexuosus* Stapf grows wild in the southwestern part of British East India, the oil is distilled almost exclusively from plantations on the slopes of the mountainous regions near the Malabar coast. The bulk of oil originates from Travancore State and a little from Cochin State. While the fertile soil of the plains is suitable for the growing of grass, the natives prefer to plant on the accessible slopes of hills because the plains serve for the growing of more important and profitable crops

[2] Bureau of Plant Industry, United States Dept. of Agriculture, Bulletin 442. *American Journal of Pharmacy* 89 (1917), 180.

[3] *Ibid.*

such as rice, peas and tapioca which form the bulk of the native food.

Until about thirty years ago, mostly wild growing grass served for distillation because at that time oil prices were high and remunerative and the buyers abroad did not as yet insist upon a high content of citral. Conditions have changed. At present, oil prices are extremely low and the cutting and transport of wild grass scattered over wide and remote regions would be cumbersome and too expensive. Furthermore, the buyers now insist upon a minimum content of 75 per cent citral and, in order to obtain this high percentage, the harvesters would have to separate the grass carefully from other herbs and weeds growing among the wild grass. Without such separation, which is lengthy and costly, the content of citral in the oil would be subnormal. Therefore, only planted lemongrass is presently used for distillation.

Such plantings are scattered over large areas and range in size from several to one hundred and even two hundred acres. Plant cutting and distilling are entirely in native hands. It is a primitive industry and forms part of the natives' general agricultural activities. There is not one European-owned planting or distillery. Years ago, a certain Mr. Vincent tried to start production on a modern scale but soon gave it up as absolutely unprofitable. Only the extremely low cost of coolie labor permits production of the oil at the present low levels, and even the coolie can derive merely the cost of his labor without any real profit. Some of the smaller properties belong to independent native peasants, but most of the land is owned by wealthy Indians who, during past years of higher oil prices, carried out their own cultivation and distillation with the help of coolie labor. Today these Indian landowners, disinterested because of low oil prices, simply rent out their land to coolies who pay them about one to two rupees per acre—just enough to meet the land tax. Since around 1925, prices of lemongrass oil have been declining continuously but if there should be a revival, the wealthy Indian landowners might resume their own planting and distillation.

Because the plantations are relatively small and scattered, distillation is carried out in extremely primitive field stills, erected near the plantings and, if possible near a jungle where firewood may be cut. The whole setup of this industry explains why, in times of too low oil prices, production simply "folds up." No one then has interest in working the stills which are simply left idle.

Planting and Cultivating

SINCE lemongrass cannot compete with the more important crops obtained on the fertile soil of the plains, the plantings are usually started in low priced land, in clearings of jungles or on the slopes of hills up to 2,000 feet altitude. Before planting, the ground is first prepared by plowing, simply by hand or by oxen. This usually takes place from March to April, toward the end of the dry and hot season, before the arrival of the first sporadic monsoon showers. The seed is sown by hand without any regularity or without regard for straight rows. The grass comes up with the first monsoon showers. Weeding should be done throughout the lifetime of the plantation, but is often neglected during periods of low oil prices, with the result that such plantings very soon become overgrown with weeds. As long as the grass is young and only about one foot high, it contains very little essential oil and attracts the cattle which like to graze on it. This, of course, must be prevented, either by field guards or by the erection of fences.

Toward the end of April the monsoon showers become more frequent and the grass grows quickly, but is not yet ripe for cutting because of inferior yield of oil and abnormally low content of citral. Around the end of May the heavy monsoon rains begin, the grass matures and may be cut. Yield of oil as well as content of citral is satisfactory and the planting may be cut every thirty-five to forty-five days. Thus in the mountains where the soil is moist, harvesting is possible throughout the months of the monsoon rains until November and even December. Altogether, four to five and even six cuttings may be obtained yearly from one planting, the grass growing up rapidly after each cutting. Toward the end of November and beginning of December the monsoon rains stop and the dry, hot season begins; the grass bears an inflorescence and the stems and leaves shrivel up, while the root remains alive. The hot, dry season lasts from January to March and even April. Before the sporadic monsoon showers of April start again the dry grass must be burnt in order to fertilize the soil and strengthen the plants. With the arrival of the rains the old roots develop new life. During periods of low oil prices, the burning of the grass is sometimes omitted, but this has a very detrimental effect upon future growth of the plants and yield of oil. While the first cutting might be normal, the second and following cuttings are liable to give an abnormally low yield of grass and oil.

The cutting is usually done with sickles. The harvesters tie the cut grass into bundles of about one-half to three-quarters of a pound. These are then gathered into larger bundles which the harvesters carry on their heads to near-by field stills.

Depending upon soil and climatic conditions of the locality, a plantation lasts on an average from six to eight years. While yield of oil is small during the first year, it increases with the second and is highest during the third and fourth years, after which it declines progressively. If oil prices are low, a plantation may be abandoned prematurely so that other more important produce, like rice, peas, tapioca and ginger, may be planted.

Lemongrass grows best on well drained, sandy-loamy soil, also in light sand. In fact, in sandy soil the relative yield of oil and content

of citral are higher than in the heavier loamy soil. One acre of sandy soil produces approximately one ton of lemongrass or twelve bottles of oil, while one acre of more fertile, loamy soil produces about three tons of grass or twenty-four bottles of oil, one bottle of oil containing 22½ ounces by weight or 25 ounces by volume.

Plant Varieties

TRAVANCORE and Cochin States in the southwestern parts of India produce two types of lemongrass, both quite different in appearance and easily distinguished.

1. The so-called "red grass" or "choomana poolu" in native language, the true *Cymbopogon flexuosus* Stapf. The color is not red but green and the oil is the regular East Indian oil of lemongrass of good solubility and about 75 per cent and more citral. In humid soil a planting might last up to ten and even twelve years, while in sandy soil the life span is shorter. As pointed out previously, most plantings are located on sandy soil because the fertile land is used for more profitable crops.

2. The so-called "white grass" or "ovela poolu" in native language, is produced only in very small quantities, mainly in the southern and a little in the northern parts of the lemongrass regions. This type of grass has been established as *Cymbopogon flexuosus* Stapf f. *albescens*.[4] Its oil is inferior in regard to solubility, and the citral content is lower. A planting lasts only a few years and, therefore, this variety of grass is gradually being discontinued, thus making room for the true *Cymbopogon flexuosus* Stapf. The oils distilled from the so-called "white grass" cannot be marketed as normal lemongrass oils. Therefore, the Indian field brokers and intermediaries, to the annoyance of the exporters in Cochin, usually bulk small quantities of this oil with lots of normal lemongrass of good solubility and high citral content. It is said that in regard to odor the oil of the "white grass" somewhat resembles citronella oil.

Lemongrass Quality Factors

ASIDE from these two plant varieties, there are other factors which greatly influence yield and quality of oil of lemongrass.

1. *Altitude and climate*: Lemongrass requires a warm climate, plenty of sunshine and sufficient but not too much moisture. On the higher slopes of the mountains against which the monsoon clouds discharge their showers the grass is moist and gives less oil, while the lower slopes, less exposed to the monsoon showers, produce grass of higher oil content. In general, warmth and sunshine are beneficial to the development of oil in the plants; regions with abundant rains may permit more cuttings of grass but the oil is of lower citral content.

2. *Soil conditions*: Dark, heavy, rich and fertile soil gives a higher yield of grass but the oil is usually of lower citral content. These observations conform with the experiments of Hood[5] who found that the same variety of Florida lemongrass, planted in dry, sandy soil, gave an oil of 75 per cent citral; in somewhat humid, sandy-loamy soil, 68 per cent, and in humid, loamy soil, 66 per cent citral.

3. *The season of cutting* has a great influence upon the quality of oil. Young and tender grass, harvested in the early season, for instance during April, gives an oil of abnormally low citral content (60 to 70 per cent) and inferior solubility. During May and June the citral content increases to 75 per cent and more, while during July and August it is usually not less than 77 per cent. The citral content increases from 78 to 83 per cent from September to December and is perhaps as high as 85 per cent in the best sections. The same is true in regard to yield.

4. *The age of the planting*: The best yield of oil is obtained during the third and fourth years after planting, decreasing thereafter.

Regions of Production

IT IS very difficult to classify regions of production according to importance of output or quality of oil, because local conditions of soil and weather vary considerably in the mountainous sections of southern India. In general, the northern sections, from which the bulk of oil originates, produce better oil than the southern parts although there are exceptions. Good oils of 80 to 83 per cent citral and normal solubility are produced near Thodahpuzha, Vazhakolam, Moovatupuza, Perambalur and Alwaye; altogether about 50 per cent of the total output of East Indian lemongrass oil originates in these sections. The oil produced around Kothamangalam is of lower quality; depending upon season, this oil averages from 65 to 77 per cent citral. About 40 per cent of the total output is produced there and the oil is usually bulked with lots of higher citral content originating from the first named regions. The rich and fertile soil around Kothamangalam may be mainly responsible for the lower citral content, practically all the other regions consisting of sandy soil. Very good oils, but only very small quantities, are distilled near Angamali, the most northern point of the producing regions. The lowest quality originates in areas scattered over the south of Travancore State, the so-called "white grass" occasionally distilled there being responsible for the abnormally low content of citral and the inferior solubility of this type. Yet some of the best oils of 80 to 85 per cent citral are distilled around Anjengo, where production of lemongrass oil was first started about seventy-five years ago. At that time the oil was shipped from Cochin in twenty-four ounce bottles, a case containing twelve bottles.

Editor's Note: In the next issue, Dr. Guenther will discuss distillation, production costs, marketing, adulteration, chemistry, etc. of lemongrass oil.

[4] *Bulletin Imperial Institute*, 12 (1914), 222; 14 (1916), 381.
[5] *Loc. cit.*

Cleaning Up Fatty Oils

De-gumming and de-sliming prior to regular refining and bleaching—methods and patents reviewed

By Paul D. Boone

BESIDES glycerides and free fatty acids, crude oils contain smaller amounts of mucilaginous gummy matter, resins, coloring matter, and in addition there are traces up to a few per cent of phosphatides. Any refining of oil aims to remove at least the materials of slime-like nature and frequently to reduce the color. If the oil is to be used for edible purposes, it is naturally necessary also for the free fatty acids to be removed. In alkali refining of oils intended for soap making, these acids are removed along with the other impurities. Then this resulting impure soap solution is worked up to recover oil therein or changed over into the fatty acids.

It is a decided advantage to remove these slime and resin bodies prior to the alkali treatment because since they lend bulk, there is an entrainment loss. Since they also exhibit pronounced emulsification tendencies, there is loss of oil in this manner too. Besides, caustic used up in effecting their removal is an additional expense. If the soap stock is converted to fatty acids, the quality of the fatty acid is adversely affected by the presence of these extraneous materials during the cleavage operation. If there is a decolorization operation using solid adsorbents, less material is required if the slime bodies are absent. In the subsequent discussion the author has tried to give a brief summary of methods other than adsorbent use or employment of concentrated sulfuric acid or zinc chloride or tannates for getting rid of these gum-like bodies in crude fatty oils.

Over fifty years ago Brannt's text book[1] gave a method of clarifying oils employing a centrifugal machine and asserting that it had given very favorable results in the hands of Mayer. The oil as it came from the press in a hot condition was conducted to a centrifugal machine which effected in a short time the separation of the mucous and albuminous substances, residues, etc. These formed a consistent deposit on the periphery of the centrifugal drum. Because these residues on the drum retain less oil, there was besides the saving of time as compared with the batch tanking method, an increment in yield of pure oil. Also it is asserted that the cleaning of the centrifuge drum proved less troublesome than tanks.

This method is quite similar in thought to a statement in the Pope patent[2] sixteen years thereafter that crude cottonseed oil could be treated without standing after leaving the press while at a high temperature as 150-250° F. by centrifuging. This was one of the alternative methods in a patent dwelling mostly on alkali refining.

Morrell-Wood's book[3] in a section devoted to removal of foots from linseed oil cautions that if the oil which has been rapidly heated to 260° to cause the break is allowed to cool very slowly part of the coagulated mucilage re-dissolves and can not be separated by centrifuging. It is imperative that no long period intervene if anything like a satisfactory removal is to be secured. There is some question as to whether the coagulated mucilage is actually re-dissolved or the degree of dispersion modified.

A method where a much higher temperature is used accomplishing both bleaching and removal of mucilage is that of Scollay[4]. The oil as linseed is rapidly heated to 615-690° F. while passing through a heated pipe, then quickly cooled in the next section of pipe, and then is led to a settling tank.

Leutkemeyer's method[5] is somewhat similar to that of Scollay both in the dual role and mode of procedure. Direct steam raises the temperature of a pre-heated continuously flowing raw oil to 400-500° F. and albuminous matter is coagulated. The oil then goes direct to a centrifuge preceded by a cooling step if desired. In an embodiment the oil is caused to flow upward in the oil space of a tank and caused to overflow with its coagulated impurities through a pipe which leads to the centrifuge. The oil is then sent to a filter to remove small traces of impurities. Both Scollay and Leutkemeyer aim not only to remove mucilage, but to bleach the oil. Any oil refiner appreciates that such high temperatures are much beyond the range required for simply degumming by coagulation.

More recently there has been patented in England[6] a method of degumming by dehydrating the muci-

laginous matter by heating under vacuum. According to an example sesame oil is placed under a vacuum and stirred while keeping the temperatures at 50° C. After about half an hour, the oil is cooled to 22° C. and then filtered. An alternative method is spraying the raw oil into an evacuated boiler, the admission being regulated so that the moisture to be removed is immediately carried off.

Use of Water or Steam

IT IS stated by Lewkowitsch[7] that simply washing the oils or fats with boiling water usually leads to a considerable improvement in quality because it is an appreciated fact that mucilaginous substances are coagulated near the boiling point of water, and thus settle out more readily. A mode employed with castor oil to remove albumin is steaming the oil, whereby the albumin is coagulated and then removing the coagulate by filtering.

Probably passing notice should be given the Lattig patent[8] which is on a mode of removing meal, refuse and other material from cottonseed oil using water or steam. It would seem that a partial de-gumming would be effected although the patentee is silent on this specific point, because the physical conditions of operation are so much alike others referred to herein. His instructions are to raise the mixture to a temperature between 60-200° F. with the preferred range about 160° F.

An old batch method[9] of removing albuminoids, resins, gums and mucilaginous matter is that of placing the raw oil upon a lower water layer in a closed tank. First steam is admitted to the upper part of the tank to drive off air without forming either a vacuum or a condition of super-atmospheric pressure. Steam is thereupon admitted to the water layer. As soon as the steam heats the oil to the same temperature as the water, "ebullition commences by reason of the steam from the water forcing its way up through the oil thus washing out and mixing the albuminoids and organic matter with the water."

Barton[10] has a method quite unique for treating crude corn oil primarily for removing the wax bodies. The oil is agitated with water or live steam whereby a temperature in the neighborhood of 70° C. is attained. The non-emulsified oil to the extent of about 65 per cent of the original volume may then be separated by standing from the middle emulsified portion and the bottom water layer. Mechanical means as a centrifuge can shorten this time. The emulsified portion is reheated with water or steam to a temperature of about 100° C. to aid in the subsequent mechanical separation. To further assist separation and prevent clogging, boiling hot water in amount equal to the emulsion is passed through a pipe immediately preceding the passing of the emulsion from the bowl into the feed pipe which leads into the centrifuge. The impurities are of course the bodies causing the emulsion and are removed in the aqueous portion during the centrifuging.

Francis M. Turner patented[11] a method which is aside from its specific teaching quite instructive on the changes brought about by heat treatment de-gumming of oils. It is explained that albumins are colloidal in nature and therefore pass through the ordinary filter press. When they are coagulated, their specific gravity is changed relative to the oil vehicle and their physical condition changes from that of liquid to a thickened curd insoluble in oil and from which it will readily separate out.

Turner's own contribution is in the nature of a series of four steps. The first step is that of passing the crude vegetable oil to a centrifuge to remove meal and other particles. Then the oil is placed in a closed tank together with a certain proportion of water ranging up to 50 per cent in some instances. Then while operating under a vacuum, steam or air is passed into the oil to effect elimination of volatile acids. The oil and water mixture as a third step is subjected to steam under pressure such being equivalent to about 274° F. That is continued for 30 minutes to 2 hours depending upon the period when clarification is effected, whereupon as a final step, the oil, water and coagulated refuse is passed to a centrifugal separator. The resultant oil is clear.

Baylis[12] warms crude cottonseed oil to not above 110° F., whereupon water at 60-70° F. in amount approximately 10 per cent of the weight of the oil is sprayed upon the oil while the latter is being gently stirred. This agitation is kept up until a complete "break" is obtained. Material which he incorrectly terms lipoids containing coloring matter, and the physically altered colloidal matter separate. The oil which prior to that treatment was cloudy becomes clear.

Kelley[13] coagulates some of the colloidal impurities carried by crude cottonseed oil by washing and agitating the oil under accurate temperature control conditions. The oil is heated to 115° F. by steam coils and then 5-10 per cent water is added. The mixture is stirred and when after a few minutes coagulation is complete, these impurities are allowed to settle and are taken out with the water.

Kraybill[14] secured a patent whereby soybean oil is well emulsified with water as in amounts 1/40 to 2 volumes of water to 1 volume of oil. Then the oil is separated from the crude phosphatides and water by centrifuging or filtration. It seems well to refer in this connection to the discussion under the Tischer patent.

Hydration Methods

IN THE previous methods water in amounts of 5 per cent or greater has been employed except in the lowest range of Kraybill's method. Yet in smaller amounts, it has been employed and what takes place has usually been designated as hydration of the impurities. By the Ayres process[15] the range is not over 3 per cent. The

(*Turn to Page 69*)

New Products and



Old and new in polish package design is shown in this Heetfield photo picturing the original and redesigned cone top can for "Met-All" polish, product of Dominant Products Co., N. Y. Redesigned container by Phoenex Metal.



This new roach powder container has just been completed for Alden-Jones Company of Montgomery, Ala., by Cin-Made Corporation, Cincinnati, Ohio.



An interesting guest soap novelty is this box of "Checker" soap marketed by Distinctive Creations, New York. Packed 24 to the $1.00 box, it was designed by Lightfoot Schultz. The box by Musto Bros., N. Bergen, N. J.

Packages



Chicago Sanitary Products Co. has just introduced a new carton for "Kleenwell" soap flakes. The 16-oz. package will soon be joined by a 5-oz. size of the same product. Container by Imperial Box Co., Chicago, Ill.



A new product being put up by Fuld Bros., Baltimore, for the private label market is "Multi-Lure" rat bait. The paper label closely simulates a lithographed container.



New items in the "18th Century" line of United Toilet Goods Co., New York, are "Old Colonial Fragrance" bath soap and toilet water. Soap by Hewitt, boxes by Buedingen, lithography by Schmidt.

RAW MATERIALS

for the soap and allied industries



News....

Soap Ass'n to Display

The Association of American Soap & Glycerine Producers, New York, has taken space for a glycerine display at the 17th Exposition of Chemical Industries to be held at the Grand Central Palace, New York, Dec. 4 to 9. The display will show some of the newer uses of glycerine and the results of the association's glycerine research.

Give Prizes in Laundry Course

The Simon Bachrach Prize for excellence in the power laundry cooperative course was awarded to Robert L. Cline, Lake Charles, Louisiana, at the June commencement exercises of the Ohio Mechanics Institute, Cincinnati. John I. Gerdon, Cincinnati, received honorable mention. The A. T. Hagen Prize for the best power laundry design, was awarded to Russell J. Kelly, Louisville, Kentucky; and Cline and Gerdon received honorable mention.

Colgate Wages, $16,000,000

Colgate-Palmolive-Peet Co., Jersey City, N. J., in its first special report to employees, stated that the company paid wages of approximately $16,000,000 during 1938. It earned a profit of $4,921,921, the best since 1931. Taxes for the year amounted to $7,119,000 or more than $700 per employee.

John Fraser Savage Dies

John Fraser Savage, for years a leading figure in the Canadian soap trade, died at the wheel of his automobile while driving to his office in Montreal on the morning of June 12. He had been associated with the firm of Albert Soaps, Ltd., through his business life. When his firm was purchased by the J. B. Williams Co. about a year ago, he remained in charge of activities of the company in an advisory capacity. Mr. Savage was in his 65th year and lived at 3459 Peel Street, Montreal.

Goodwin Yardley Sales Mgr.

Irving S. Goodwin has just been named sales manager of Yardley & Co., New York. He has been with the company for the past seventeen years and recently had served as assistant to the late Curtis Campaigne, Yardley sales manager until his death.



Irving S. Goodwin

Close Latvian Soap Plants

The Latvian Chamber of Commerce and Industry, under the Government's rationalization and concentration program, has decided to reduce the number of the country's soap plants from 28 to 12 in number. Some will be liquidated and others amalgamated.

Chas. Fischbeck Wins Trophy

Charles Fischbeck, of P. R. Dreyer Inc., New York perfuming materials house, won a cup at the recent golf outing of the members of the entertainment committee of the Toilet Goods Association held at the Pine Valley Golf Course.

New Glycerine Soap

Asco Chemical Co., Brooklyn, N. Y., for some years manufacturers of saddle soaps and leather soaps specialties, is preparing to market a new amber glycerine soap to the department stores and drug trade. The new product which is an amber transparent bar wrapped in cellophane will be known as "Follicol" glycerine skin soap and will retail at twenty-five cents per bar.

Leaves Paterson Soap Co.

Carl Schleif, president, Paterson Textile Soap Co., Paterson, N. J., will withdraw from the concern and devote his time as consulting engineer and chemist for soap and allied industries. He has had nearly forty years experience in various soap productions, their plants and problems. Anton Hohlhold, one of the partners of the firm, will rebuild the company's factory which was totally destroyed by fire several months ago, and continue in the manufacture of soap powders.

New Solvent for Curran

The Curran Corp., Malden, Mass., has announced a new solvent that is said to combine soap and water detergency with the high solvent performances of benzines. The new solvent, according to the development laboratory, is sparkling clear in appearance, highly penetrating and non-inflammable. It is further said, that small metal parts, stampings, etc., dunked in the solvent assume a scoured appearance without etching, marking or loss of weight.

Form C. B. Chemical Co.

C. B. Chemical Co. has recently been incorporated at 98 Manhattan Ave., New York, to manufacture cleaning materials.

End D. of C. Privilege Tax

The District of Columbia business privilege tax which has been in effect since 1937, requiring all firms doing business in Washington to take out a license at $10 a year and to pay a tax on gross sales, will not be extended past the expiration date, June 30. Action of the House of Representatives was contrary to recommendation of the District of Columbia commitee which wanted to extend the tax permanently. The measure had been under constitutional attacks by soap and cosmetic manufacturers and an action on this basis was recently taken before the U. S. Court of Appeals by Colgate-Palmolive-Peet Co.

Wissell Soap Wins Award

The Wissell Soap & Chemical Co., Cincinnati, has been awarded first prize in a national sales letter contest for the entry sent in by its sales manager, M. C. Brown. Last year Brown won second place in a similar competition. Frank J. Wissell, president, said the letter is used in addressing large industrial users of auto soaps.

Rupert Watson Recovering

Rupert C. Watson, vice-president and general manager of Firmenich & Co., New York, who broke his ankle in a fall several weeks ago, has now left St. Vincent's Hospital, Staten Island, and returned home. He is still unable to get about without crutches and it may be several weeks more before he will be able to return to active duty. Meanwhile he is keeping in touch with business by telephone.

Publish British Soap Guide

The publishers of *Soap, Perfumery & Cosmetics*, London, have just issued the 1939 edition of their Buyer's Guide & Cyclopaedia. Of chief interest to American readers in the new edition will be a series of reviews of the year's progress in the various industries covered by the publication, written by Dr. Arthur Lewinson, Hugo Janistyn, Ralph H. Auch, Dr. J. Davidsohn and F. V. Wells, editor of *Soap, Perfumery & Cosmetics*. The section on reference material has been materially expanded and a list of selling agents in various parts of the world has been included. One copy is given free to each subscriber to *Soap, Perfumery & Cosmetics*. To others the price is 10/6.

Appeal Gives "B.O." Verdict

The Court of Customs and Patent Appeals, has recently handed down a decision reversing the Commissioner of Patents who last year held that "Nobio" was not an infringement of the letters "B.O." and that Nobio Products, Inc., New York, was entitled to use "Nobio" as a trademark. Lever Bros. Co., Cambridge, makers of "Lifebuoy" soap and users of the term "B.O." carried the appeal to the higher court. The court said in its opinion: "Although Lever Bros. Co. never used the letters "B.O." or the words "body odor" as a trademark or otherwise on its goods, is has so extensively advertised its "Lifebuoy" soap as a preventative of "B.O." that it has become popularized and identified in the mind of the purchasing public by the term "B.O." Accordingly, the court is of the opinion that the term "B.O." serves to indicate origin in appellant, and that its use is analogous to that of a trademark, and sufficient to oppose the registration of a similar trademark.

Youngstrom in New Connection

S. F. Youngstrom, for many years connected with Wilbur-Ellis Co., of New York, and for an interval with the former Brown Edwards Co., has become associated with Garrigues, Stewart & Davies, Inc., glycerine brokers, New York. He will handle a full line of soap and drying oils.

Woodbury Radio Show

Andrew Jergens Co., Cincinnati, will launch a radio program on July 7, over the Columbia Broadcasting System on behalf of its "Woodbury" soap.

B. T. Bush Wins BIMS Golf

Eighty-three members and guests of BIMS gathered at Pomonok Country Club, Flushing, Long Island, on June 13, to celebrate the second 1939 outing. B. T. Bush, Bush Aromatics, Inc., posted the low gross of 77. Second prize went to C. H. Murphy (Barron Collier) who carded an 810. Martin F. Schultes, chairman of the organization, outlined plans for a group visit to the first Boston BIMS outing which took place on June 22.

Novel Admiracion Car Card

Admiracion Laboratories, Harrison, N. J., are using a new "three dimensional" car card to promote "Admiracion" shampoos. The advertisement contains a portrait of a young lady whose hair is chemically treated hemp. The hemp conveys the idea of abused hair. It is said to be the world's first "three dimensional" car card.

Cereal Chemists Honor Garnatz

George Garnatz, chief of the Kroger Food Foundation Laboratories, Cincinnati, has been elected president of the American Association of Cereal Chemists. He was formerly research chemist for the Globe Soap Co., St. Bernard, Ohio.

Talbot Resigns Post

Dr. William F. Talbot has resigned his position as research chemist with the Dennison Manufacturing Co., Framingham, Mass., to accept a similar position with Arthur D. Little, Inc., Cambridge, Mass.

April Soap Index Down

The employment index of the soap industry compiled by the U. S. Dept. of Labor, dropped two points in April to give a mark of 88.4 as compared to the March, 1939, mark of 90.5. This mark, however, was above the 86.9 figure of April, 1938. The 1939 April payroll index followed the same trend with a mark of 91.2. This compared with the 1939 March figure of 92.5 and the 1938 April figure of 87.

Wiggins Chemical Expansion

Wiggins Chemical Co., Cincinnati, has moved from 8-12 East Front street to 214-216 Walnut street, the new quarters, comprising 28,000 square feet of floor space in a five story building. D. C. Wiggins is president and J. W. Wiggins is vice-president of the company, manufacturers of Wiggs Waterless Cleaner and Magic Foam dry cleaner. The company has recently placed eleven new men in the field. G. W. Mount has been made manager for the New England states, with headquarters at 220 Broadway, New York.

Mrs. Louise McMichael Dies

Mrs. Louise McMichael, wife of Charles E. McMichael, chemical supervisor of a department of the Procter & Gamble Co. at Ivorydale, died recently from injuries received in a fall from a second-story window of their home in College Hill. She was overcome by fumes from ammonia she was using in cleaning windows and lost her balance.

Lever Bros. of Canada Build

A $300,000 addition to the big Toronto plant of Lever Brothers, Limited, soap manufacturers, is that company's response to expanding business conditions in Canada. H. A. Wilkins, president of the company, reports that the new building, on which work is well under way, will consist of three stories of concrete, brick and steel construction. It will be 140 feet long and 80 feet wide, and will house the company's general offices and cafeteria. Air conditioning will be adopted throughout. The present office building will be utilized for laboratories and the works office, when the new quarters are occupied this Fall.

Hydrol Soap Co. Moves

Hydrol Soap Products Co., soaps and cleansers, Detroit, has moved to other quarters at 641 Winder Street.

Conti World's Fair Exhibit

Conti Products Corp., soaps and shampoos, New York, has a 17th Century Florentine Pharmacy on exhibit in the Hall of Pharmacy at the New York World's Fair. It is the original pharmacy which stood in Florence, Italy, about the year 1624, with its original walnut woodwork, spruce drawers and other "Old World" equipment. This pharmacy contains what is probably the finest and largest collection of pharmacy jars in existence. The exhibit also includes a large collection of awards and medals for "Conti Castile Soap" from international expositions and world's fairs, going back for more than a hundred years. The photograph illustrates a small section of the pharmacy only.



Redding Dies as Boat Upsets

Eric Redding, secretary of J. H. Redding, Inc., New York, vegetable oil brokers, and only son of John H. Redding, head of the firm, was drowned in a boat accident on Long Island Sound, June 11. Redding was sailing with a friend in a Star Class boat when a puff of wind tipped them over into the sound. The boat sank and Mr. Redding, who was heavily clad was unable to keep afloat until rescue arrived.

Dubois Loses Damage Suit

Dubois Soap Co., Cincinnati, has lost its $6,451 damage suit against the City of Cincinnati. The unsuccessful action was based on the charge that the city failed to inform the soap company that it had decided not to repair an old sewer. Later, when excavation was made for a new building, it was alleged that accumulation of waste in the old sewer caused flooding of the excavation.

Western Soap Fights Tax Case

Western Soap Co., Spokane, Wash., has carried to the U. S. Board of Tax Appeals a protest against assessment by the Bureau of Internal Revenue of a $8,588.83 federal tax on 1936 income and profits. Frank E. Irvine, president of the company, contends that the tax commissioner erred when he did not allow a deduction of $19,935.64 from net taxable income, which represented indebtedness which was cancelled by agreement of the creditors. The company also should not have to pay surtax on undistributed profits, Irvine claims in his appeal, because under the laws of the State of Washington it was unlawful during the year 1936 for the taxpayer to declare and pay dividends.

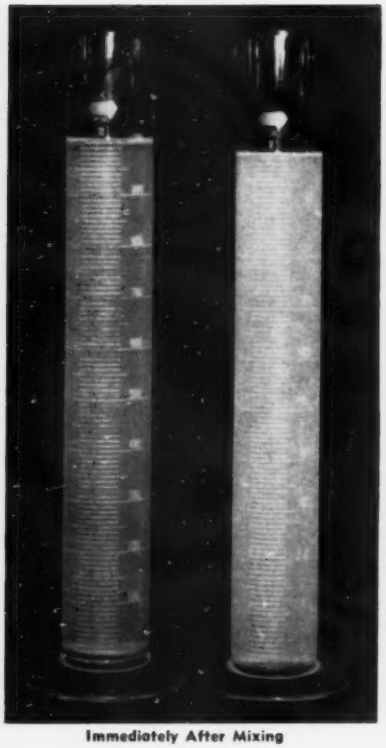
Chem. Salesmen Hear Harold

The Salesmen's Association of the American Chemical Industry held the second of a series of luncheons in the Chemists Club, New York, on June 20. Dr. Joseph F. X. Harold, a specialist in the textile field, spoke on the subject "Chemicals in the Textile Industry."

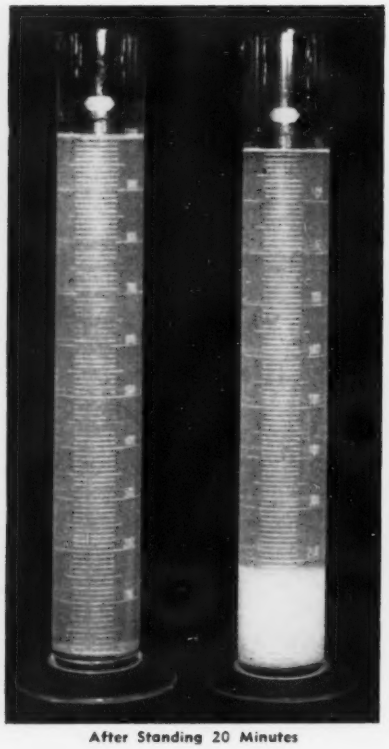
TETRA SODIUM PYROPHOSPHATE

HOW "PEPTIZING" ACTION PREVENTS DIRT PARTICLES FROM STICKING TOGETHER AND BECOMING ENMESHED IN FABRIC--CLOTHES RINSE CLEANER

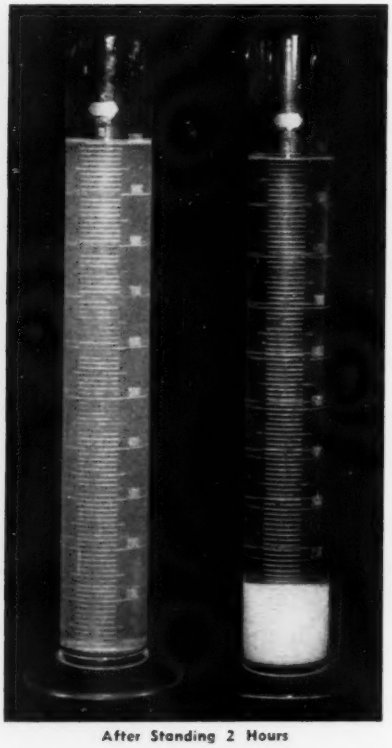
OUTSTANDING among the many advantages contributed by TETRA SODIUM PYROPHOSPHATE as a soap builder is its unique "peptizing" action which imparts to particles of solid matter a tendency to repel one another. Not only is this effect imparted to the solids precipitated through water softening, but to particles of dirt, grease, and other soil present as well. Instead of growing to such a size that they become enmeshed in the fabric being washed, these "peptized" particles remain finely divided and uniformly suspended throughout the washing solution. As a result, clothes are whiter, rinse better, and smell sweeter when dry.



Immediately After Mixing



After Standing 20 Minutes



After Standing 2 Hours

Look at the difference shown by this simple test! The graduate on the right in each panel, contains hard water to which has been added straight trisodium phosphate as a softening agent. The one on the left contains hard water to which has been added a mixture of 25% tetra sodium pyrophosphate and 75% tri-sodium phosphate. Even immediately after mixing, the difference in precipitates is noticeable . . . a difference that becomes more pronounced as time passes. After standing for two hours, the tiny particles "peptized" by tetra sodium pyrophosphate still remain suspended in the solution . . . while those precipitated by straight tri-sodium phosphate have grown to such a size that they have settled on the bottom of the graduate.

VICTOR

VICTOR CHEMICAL WORKS
141 W. JACKSON BOULEVARD • CHICAGO • ILLINOIS
Plants: Nashville, Tenn.; Mt. Pleasant, Tenn.; Chicago Heights, Ill.
Offices: New York, N. Y.; Kansas City, Mo.; St. Louis, Mo.; Greensboro, N. C.

HEADQUARTERS FOR...
pHosphates

Soaps Under the Food and Drug Act

WHEN the President signed the Lea Bill, June 23, the labeling provisions of the Federal Food, Drug and Cosmetic Act which were to have gone into effect on June 25 were postponed until January 1, 1940, with the added possibility that further extensions may be granted until July 1, 1940, on products manufactured prior to February 1, 1939, at the discretion of the Secretary of Agriculture. The postponement means but little to the soap industry as the definition of cosmetic in the act specifically excludes soap. The only soap which is subject to regulation under the act is that which technically is a "drug." In effect the act applies only to those soaps which are listed in official drug compendiums such as the U.S.P., those intended for use in the treatment of disease, and soaps sold for use as components of drugs.

Soaps which are technically classed as drugs under any of the above designations must comply with the labeling requirements set down in the act for drugs. In general the most important of these requirements are as follows:

1. If the soap is listed in one of the official compendiums, any difference in strength, quality or purity from the standard must be stated on the label. It must be labeled and packed as prescribed in Sec. 502 (g) of the act. (The U.S.P. lists *Sapo Mollis* and *Sapo Durus*. Ed. Note.)
2. If the soap is not designated solely by a name recognized in an official compendium, its label must bear the common or usual name of the soap; if made from two or more ingredients, the common name of each active ingredient must be given.
3. Labeling must not be false or misleading.
4. Package labels must bear name and address of manufacturer, packer or distributor, as well as weight, measure or count of the contents. If not made by the person whose name appears on the label, it must bear a phrase such as "Manufactured for and packed by ———."
5. Label must bear directions for use and warnings against unsafe application.
6. If containing a habit forming drug, the name, quantity and per cent must be given together with a warning statement.
7. Label must not provide frequency or duration of use which would be injurious to health.
8. Every required label statement must appear in a size and position as to render it likely to be read.

———♦———

United Enjoins Shulton

In a decision handed down June 10 in the U. S. District Court for the Southern District of New York by Judge John W. Clancy, Shulton, Inc., New York marketer of "Early American" soaps and toiletries, was enjoined from imputing alleged infringement of its trade marks or unfair competition on the part of United Toilet Goods Corp., New York, makers of the "18th Century Line" of toilet articles. The action was based on a claim by the plaintiff that the Shulton firm was interfering with its business. According to the claim, the trade was advised that suit was about to be started by Shulton alleging trade mark infringement and unfair competition and that retailers might become involved if they sold "18th Century" products.

Shulton answered the complaint with a counterclaim, which is still pending, and on which the final outcome of the case will depend. In the counterclaim Shulton charges that United's "18th Century" line uses packages, labels, designs, etc., which are covered by Shulton's trade marks, and that this use constitutes infringement and unfair competition. A permanent injunction to restrain the alleged acts of unfair competition is sought.

In his decision Judge Clancy said, "We think it is apparent that persons representing the defendant have been overzealous in their representations to the trade. Since we fail to find any infringement or unfair competition on behalf of the plaintiff, we are convinced that this is a proper case wherein the Court should enjoin defendant from further representing to the trade through its agents or otherwise any alleged infringement of its trade marks or unfair competition with it by the plaintiff, or asserting any threats of litigation based thereon."

———♦———

Soviet Soap Industry Expands

Sales of toilet soap in Russia during 1938 amounted to 36,000 metric tons, according to reports issued by the Soviet government. During the third Five-Year Plan, they state, new soap factories producing 20,000 tons a year will be erected. It is expected that a Moscow soap plant will shortly produce soap chips for washing silk and rayon fabrics and that the Troitskii soap factory will be brought to full capacity of 7,000 tons of household soap per year.

———♦———

Faverjon Returns to France

J. Faverjon, general manager Payan & Bertrand, essential oils, Grasse, France, sailed for home June 21, aboard the *Ile de France*. He had been in this country for six weeks visiting the trade with Gerard J. Danco, head of Gerard J. Danco, Inc., New York representatives. While in Chicago, Messrs. Faverjon and Danco appointed Arthur E. Bennett, Inc., midwestern agents.

———♦———

Society Chem. Industry Elects

The American Section of the Society of Chemical Industry has elected the following officers for the year 1939-40. Chairman, Wallace P. Cohoe; vice-chairman, Lincoln T. Work; honorary secretary, Cyril S. Kimball, and honorary treasurer, J. W. H. Randall.

———♦———

J. Frederick Wiese, who since 1935 has been assistant to vice president of Lukens Steel Co., Coatesville, Pa., has been appointed general manager of sales.

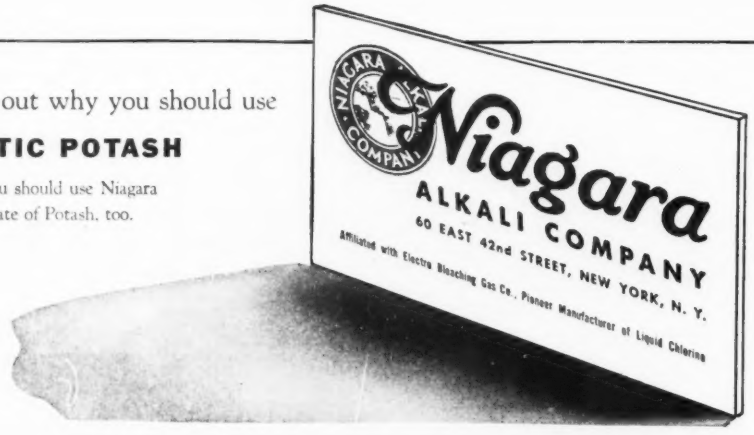


"But Mamma, we just couldn't leave until we'd solved that puzzle in the last issue of THE PIONEER."*

It's no puzzle at all to figure out why you should use

NIAGARA CAUSTIC POTASH

And it's easy to see why you should use Niagara Caustic Soda and Carbonate of Potash, too.



*The house organ of Niagara Alkali Company, which will be sent to you monthly on request.



Contracts Act Excludes Soap

The Public Contracts Board recently recommended to the Secretary of Labor that all shaving soap, shaving cream and dentifrices, be excluded from the definition of the drug and pharmaceutical industry as contained in the minimum wage recommendations for this industry under the Walsh-Healy Act. The Public Contracts Division has included shaving soap and lather shaving creams in the soap industry.

Emery Wins Patent Cases

Emery Industries, Inc., Cincinnati, has issued an announcement to the trade regarding the legal situation on use of the "Sanitone" dry cleaning process, declaring its patent position is clarified by a recent decision covering the use of water in batch operation. Coupling this decision with one given in a previous case which covered cyclic operations, Emery Industries says the scope of the patent protection afforded those who operate with "Sanitone" is now clearly defined. The announcement follows on the heels of a decision handed down last month by Judge Barnes, District Court of the United States, Northern District of Illinois, Eastern Division, in the case of Emery Industries, Inc. vs. Schumann and DeFay. Filed in 1937, the suit alleged that defendant's "Tru-Sheen" process was an infringement of the Reddish patents No. 1,911,289 and No. 2,024,981. Judge Barnes decided the "Sanitone" patents were valid and had been infringed by the defendant companies. Emery also report that the U. S. Patent Office has issued a patent covering the "Sanitone Humidifier" and the process in which it is used.

Mentos Shampoo Stipulation

Mentos Products, Inc., Philadelphia, have agreed to cease advertising that "Mentos" shampoo is capable of cleansing below the pore openings of the skin. In its stipulation, the company admits that use of its product will not accomplish the results claimed.

Tom Farrell Back on Duty

Thomas M. Farrell, editor of *Drug & Cosmetic Industry*, New York, has returned to active duty after six weeks spent in recuperating from an operation for appendicitis. He underwent an emergency operation shortly after his return from the A. D. M. A. meeting at Hot Springs and was critically ill for several weeks.

Colgate to Redeem Stock

Colgate - Palmolive - Peet Co., Jersey City, N. J., plans to redeem on August 1, 1939, 50,000 shares of its 6 per cent preferred stock at the call price of $102.50 per share plus accrued dividends from July 1.

Procter Memorial Dedicated

A marble memorial to the late William Cooper Procter, former president and chairman of the board, Procter & Gamble Co., Ivorydale, O., was unveiled and dedicated on June 8, before a large group of company employees, their families and friends. The one-hundred-ton memorial contains a full length figure of Mr. Procter which stands eight feet high and is reinforced on either side by low reliefs showing figures of two groups of workers in production and distribution activities. The memorial proper is twenty-five feet long and fourteen feet high, and is so placed that it is clearly visible from any spot in Ivorydale. Prominent among those present at the dedication were Mrs. William Cooper Procter, the widow and Mrs. Ralph Rogan and Mrs. C. C. Benedict, sisters of Mr. Procter. Vice-president R. K. Brodie, in charge of manufacturing, introduced the speakers; Richard R. Deupree, president and Herbert G. French, executive vice-president. Mr. Deupree traced the growth of the company from the original plant in Cincinnati with 250 employees to thirty-two plants in the United States, Canada, England and Cuba with over 10,000 employees during Mr. Procter's incumbency from 1883 to 1934.

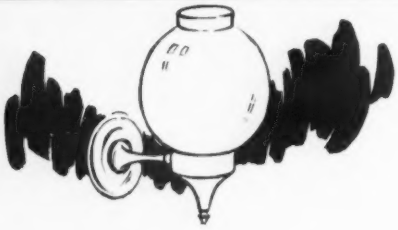
Bermuda Soap Imports

Imports of soaps into Bermuda during 1938 were valued at $83,150, of which laundry soaps comprised $25,460, toilet soaps, $12,725, and soap flakes and other types, $44,965. Over half of these imports originated in the United States.

James D. Dunn Dies

James D. Dunn, sales manager of J. B. Williams Co., Ltd., Canada, died in the General Hospital, Toronto, recently after a short illness. He was born in Belfast, Northern Ireland, and came to Canada at an early age. He served the Williams company as sales manager for twenty-two years and previously to that was with the Gillette Razor Co. Mr. Dunn was 51 years of age.

LIQUID SOAP PERFUMES



The perfumes in this group produce extremely pleasant floral and bouquet effects at the low cost of but one and a fraction cents per gallon. Being highly soluble they will not affect the clarity of the soap.

LAUNDRY SOAP PERFUMES



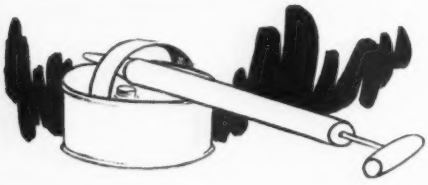
Our Special Perfume Division has just perfected six new and very interesting laundry soap perfumes. These produce clean, fresh odors at a cost of less than five cents per hundred pounds of soap. By all means, investigate!

FLY SPRAY PERFUMES



Our selection of insecticide perfumes includes a fine choice of live, refreshing odors. Although competitively priced, they can be relied upon to provide complete odor coverage and fragrance appealing to the most critical.

DEODORANT P-36



This is a new and remarkably effective deodorant for use in products containing Lethane No. 384 Special. It completely neutralizes the Lethane effect without leaving any perceptible odor of its own. Powerful, yet inexpensive.

FRITZSCHE BROTHERS, Inc.

PORT AUTHORITY COMMERCE BLDG., 76 NINTH AVENUE, NEW YORK, N. Y.

BRANCH STOCKS

BOSTON CHICAGO LOS ANGELES ST. LOUIS TORONTO, CANADA MEXICO, D. F.

FACTORIES AT CLIFTON, N. J. AND SEILLANS (VAR) FRANCE

A *Fritzsche* PRODUCT for EVERY PURPOSE . . .

- **ESSENTIAL OILS**

  Your basic materials should be the finest that modern methods and scientific skill can produce. In using FRITZSCHE'S Essential Oils you are assured matchless purity and dependability.

- **AROMATIC CHEMICALS**

  Large selection and superlative quality characterize the materials in this group. Use them for finer aromatic effects and for greater economy.

- **FIXATIVES**

  We carry a complete line of fixatives, including Rose Crystals, one of the best all-around fixatives, also a group of Artificial Animal Scents—Musk, Civet, Castoreum and Ambergris—especially adaptable to soap making.

- **ANTI-OXIDANTS**

  These recently developed preservatives for soaps, animal and vegetable fats and oils are highly important to the soap manufacturer. Write us for full details concerning Oxidex.

- **BATH SALT PERFUMES**

  Combining perfume and color, our delightful Bath Perstels greatly simplify and facilitate the process of manufacture. Very economical. Complete information and list of blends will be sent upon request.

- **INSECTICIDES AND DISINFECTANTS**

  Note our advertisement on opposite page,—then investigate our improved line of odors. Each item in this group embodies the latest advances in scientific perfuming.

- **DEODORIZING COMPOUNDS**

  Technical products such as para blocks, naphthalene, cleansers, waxes, polishes, solvents, diluents, etc., require good, dependable deodorizing compounds in their formulae. For effective, low cost coverage we offer and recommend in addition to Neutroleum—Safrella, Javollal, Methalate "C", and others. See advertisement on page opposite.

- **TOILET SOAP COMPOUNDS**

  Perfumes in this group have been specially prepared to meet the exacting demands of soap manufacture. Exquisite scents at a minimum cost. Consult our catalog.

- **LIQUID SOAP AND SHAMPOO PERFUMES**

  See opposite page. These perfumes are highly soluble and mix readily with liquid soaps. Simple to use, cost limits and strength of odor desired determine quantity required.

- **DENTAL AND ORAL FLAVORS**

  These flavors are of a special character, skillfully blended to impart pleasant, clean, refreshing taste effects. We are prepared also to create special flavor blends according to your specifications and for your exclusive use. Consult us freely.

- **SOAP COLORS**

  We supply soap colors to produce any desired tint. Send us description or sample of color to be matched for our specific recommendations.

SEND FOR SAMPLES

Chicago Golf Tournament

Over sixty members and guests of the Golf Auxiliary of the Chicago Drug and Chemical and Chicago Perfumery, Soap and Extract Associations were on hand June 13th at a golf outing at Olympia Fields Country Club. The following were prize winners: Class A—1st, George Epstein; 2nd, Harry G. Larson; 3rd, Tom Morgan; 4th, Elmer G. Smith; Class B—1st, P. A. Rising; 2nd, A. C. Stepan, Jr.; 3rd, A. C. Stepan, Sr.; 4th, Dudley F. Lum; Class C—1st C. P. Van Schaak, Jr.; 2nd, W. R. Nay; 3rd, Fritz Degener; 4th, R. W. Simmons; Class D—1st, J. Wehmer; 2nd, C. S. Curtis; 3rd, C. Edwards; 4th, J. A. Gauer. Guest prizes were won by John Bodevin, D. J. Glenister, Ralph Johnson and R. L. Glanz. The next tournament is scheduled for July 11th at Glen Oak Country Club.

Cites Kolynos Advertising

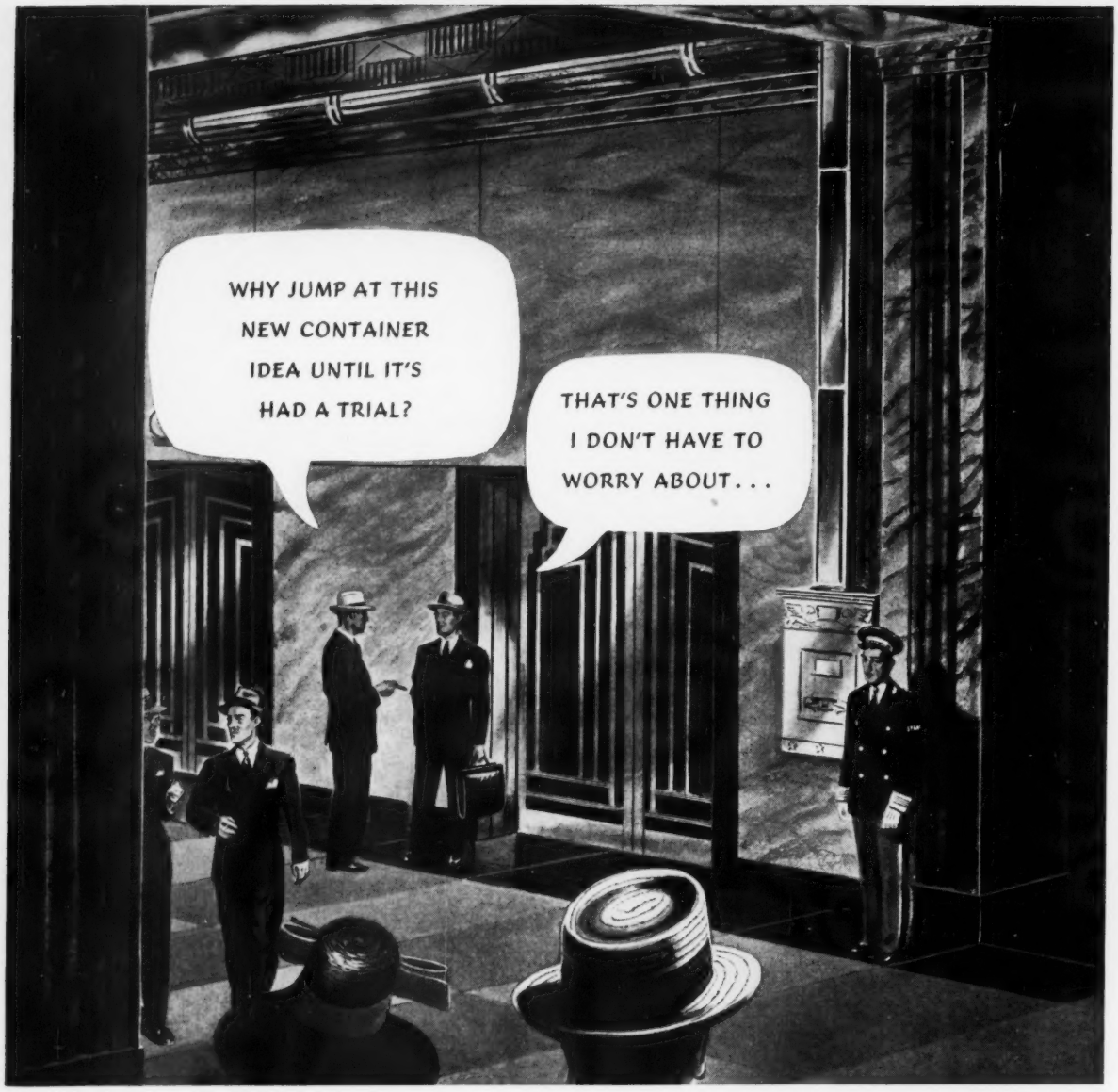
The Kolynos Co., New Haven, Conn., has been ordered by the Federal Trade Commission to discontinue advertisements to the effect that "Kolynos" is an effective germicidal or antiseptic agent; that it will remove stains other than ordinary surface stains; and that it will keep the mouth clean and healthy or assure sound teeth. The Commission has found that the dentifrice will not accomplish the results claimed.

Mrs. Caleb Johnson Dies

Mrs. Caleb E. Johnson, widow of Caleb E. Johnson, founder of the Palmolive Company, died in her home in Florida, May 21 after a long illness. Surviving are two daughters.

Britain Soap Imports Down

Imports of soaps of all kinds into the United Kingdom during the first quarter of 1939 amounted to 32,423 hundredweight valued at £107,468, which compared with 39,401 hundredweight valued at £135,218 in the corresponding months of 1938, according to reports issued by the U. S. Bureau of Foreign and Domestic Commerce.



"When American Can Company puts a new container idea on my desk, I know it's already had its trials. Their engineering staff has tested its merits; their research division has given it the most rigorous scientific tests; their marketing division has studied it. So I know it's right! Wait? Why should I? I can be first to use it because I can *depend* on American Can Company! That's why I've dealt with them since I started in business!"

CANCO AMERICAN CAN COMPANY, 230 PARK AVENUE, NEW YORK, N. Y.

Contracts Awarded

Granular Soap Bid

James Good, Inc., Philadelphia, submitted the low bid of $156.24 on 84 cartons granular soap in a recent opening by the Veterans Administration Supply Department at Washington, D. C.

Army Soap Awards

Colgate - Palmolive - Peet Co., Jersey City, was awarded the contract on 10,000 cakes toilet soap at $7.33 C lbs. in a recent opening by the U. S. Army Engineer Corps at Philadelphia. At the same opening, Swift & Co., Chicago, was awarded the contract on 10,000 cakes laundry soap at $4.533 C lbs.

Washington Soap Bid

Colgate - Palmolive - Peet Co., Jersey City, submitted the low bid of 8.25c on 6,885 lbs. soap in a recent opening by the Treasury Procurement Supply at Washington, D. C.

Washington Cresol Bid

Crystal Soap & Chemical Co., Philadelphia, submitted the low bid of 73.9c on 500 gals. cresol compound in a recent opening by the Treasury Procurement Supply at Washington, D. C.

Post Office Soap Bid

Colgate - Palmolive - Peet Co., Jersey City, bid low on 20,040 lbs. laundry soap at 3.03c lb. f.o.b. Jeffersonville, Ind., and 3.45 lb. f.o.b. Jersey City, in a recent opening by the Post Office Supply Department at Washington, D. C.

Metal Polish Bid

Mirax Chemical Products Corp., St. Louis, bid low on 2,400 lbs. metal polish at 8.4c in a recent opening by the Post Office Supply at Washington, D. C.

Soft Soap Bids

Harley Soap Co., Philadelphia, submitted the following low bids in a recent opening by the Post Office Supply at Washington, D. C. On 100 100-lb. kegs soft soap, 3.3c; on 50 250-lb. kegs, 3.24c, and on 100 450-lb. bbls., 3c.

Disinfectant Award

Crystal Soap & Chemical Co., Philadelphia, was awarded the contract on 1,650 gals. disinfectants at 39.5c gal. in a recent opening by the Treasury Procurement Supply at Washington, D. C.

Washington Cleaner Bid

R. M. Hollingshead Corp., Camden, N. J., submitted the low bid of 40.95c on 7,000 gals. cleaner and renovator in a recent opening by the Post Office Supply at Washington, D. C. At a more recent opening, the Hollingshead company bid low on 13,000 gals. liquid floor wax at 28.24c.

Washington Soap Bids

The following firms submitted low bids on various quantities of soap in a recent opening by the Treasury Procurement Supply in Washington, D. C. Los Angeles Soap Co., Los Angeles, 2.72c on 10,500 lbs. laundry soap; Procter & Gamble Distributing Co., Cincinnati, 2.08c on 100,000 lbs. laundry soap; S. Strunz Sons, Pittsburgh, 5.9c on 50,000 lbs. toilet soap and Iowa Soap Co., Burlington, Iowa, 10c on 6,300 lbs. toilet soap.

Disinfectant Bid

Crystal Soap & Chemical Co., Philadelphia, submitted the low bid of 33.4c on 220 gals. noncorrosive cresol disinfectant in a recent opening by the Washington, D. C., Government Printing Office.

Insecticide Bids

American Fluoride Corp., New York, submitted the following low bids on insecticide in a recent opening by the Treasury Procurement Supply at Washington, D. C. For insecticide in 1-gal. cans, 70c; in 5-gal. can, 65c; in 30-gal. drums, 63c; in 55-gal. drums, 60c.

Soap Powder Bid

Armour & Co., Chicago, submitted the low bid of 2.35c on 33,600 lbs. soap powder in a recent opening by the Post Office Supply at Washington, D. C.

Floor Wax Bid

Waxaid Co., Baltimore, bid low on 2,400 gals. water emulsion floor wax at 36.99c per gal. in a recent opening by the Post Office Supply at Washington, D. C.

Tar Soap Bid

Pecks Products Co., St. Louis, submitted the low bid of 10c on 360 lbs. tar soap in a recent opening by the Treasury Procurement Supply at Washington, D. C.

Grit Soap Bid

Conray Products Co., New York, submitted the low bid of 3.89c on 6,250 lbs. grit soap in a recent opening by the Treasury Procurement Supply at Washington, D. C.

Higher Fatty Acids

A process and apparatus are described for obtaining higher fatty acids by subjecting fats to steam distillation. The residue is constantly removed. The substance to be distilled is heated to 205-315° C. in an air-free distillation column to soften it. A current of superheated steam is led in at such a temperature that the bottom of the column is at 300-360° C. and the issuing steam and fatty acid vapor are at 199-288° C. New Process Fat Refining Corp. German Patent No. 665,874.

Glasslike Soap

The fatty mass to be cooled is mixed with high-molecular weight saturated organic acids or their esters, which have first been oxidized with peracids or their salts. B. N. Tyutyunnikov and A. S. Chernichk'na. Russian Patent No. 47,389.



Streamlined

FOR READY MARKETS!

PQ SOLUBLE SILICATES are geared to your regular formulae. They fit your need of effective detergency at an economical cost.

In each PQ grade, solution or powder, the role of silica is a major one. For instance, the amount of silica associated with a unit of alkali has a material effect on the intensity of its action. The silicates provide safety for sensitive surfaces.

Are you interested in faster sudsing action, in better dirt suspending power? Then look into the PQ Soluble Silicates. The powdered grades, numbering about 15 in all, are a great convenience for the dry mix formulae. A special bulletin on the powdered silicates is available to any soap maker or compounder interested.

PHILADELPHIA QUARTZ COMPANY

General Offices: 125 S. Third St., Philadelphia. Eight convenient plants.
Chicago Sales Office: 205 W. Wacker Dr. Sold in Canada by National Silicates, Ltd.

PQ SILICATES OF SODA

New Trade Marks

The following trade-marks were published in the June issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

AME—This in solid letters describing shampoo. Filed by Enterprise Laboratories, New Haven, Conn., March 10, 1938. Claims use since Dec. 4, 1937.

PRETTY MAMA—This in solid letters describing shampoos. Filed by La Charma Co., Tampa, Fla., Dec. 16, 1938. Claims use since Sept. 1, 1938.

PARICAL — This in stenciled letters describing insecticides. Filed by General Chemical Co., New York, April 7, 1939. Claims use since March 8, 1939.

YESTERYEAR — This in fancy letters describing hair tonics. Filed by Babs Creations, Inc., New York, April 11, 1939. Claims use since March 3, 1939.

BLUE LABEL—This with the "Blue" in solid letters and the "label" in script letters, both on a label lined for blue. Used to describe furniture polish. Filed by Blue Label Manufacturing Co., Great Falls, Mont., April 11, 1939. Claims use since Dec. 7, 1938.

DOWCLENE—This in solid letters describing dry cleaning solvents. Filed by Dow Chemical Co., Midland, Mich., Oct. 20, 1938. Claims use since Aug. 15, 1938.

HYGENOL—This in solid letters describing cleaning preparation. Filed by Hercules Powder Co., Wilmington, Del., Nov. 10, 1938. Claims use since Oct. 8, 1934.

FERRY'S—This in solid letters describing insecticide. Filed by Ferry-Morse Seed Co., Detroit, April 16, 1938. Claims use since March, 1938.

NEVERMOTH—This in outline letters within rectangle of contrasting color, describing insecticides. Filed by Associated Chemists, Portland, Ore., May 13, 1938. Claims use since Dec. 11, 1927.

PARA-BACO—This in solid letters describing insecticides. Filed by Solvay Process Co., New York, Jan. 27, 1939. Claims use since Dec. 6, 1938.

ANDRESIN—This in solid letters describing dentifrice. Filed by Andresin Laboratories, Springfield Gardens, New York, Dec. 31, 1938. Claims use since June 1, 1937.

JAP-ROTE — This in stenciled letters describing insecticides. Filed by General Chemical Co., New York, April 19, 1939. Claims use since Feb. 10, 1939.

SAV—This in solid letters describing synthetic detergent. Filed by General Mills, Inc., Minneapolis, March 29, 1939. Claims use since March 24, 1939.

KAR-FOAM—This in solid letters describing automobile wash. Filed by Karfoam Corp., Dover, Del., March 30, 1939. Claims use since March 23, 1939.

SEAGRAM—This in Old English letters above figure of ship's wheel and anchor, describing metal polish. Filed by Seagram Chemical Co., Passaic, N. J., April 4, 1938. Claims use since Nov. 1, 1937.

DENTABRITE — This in solid letters above drawing of sun, describing cleaning powders. Filed by Dentabrite Laboratories, Portland, Ore., Jan. 27, 1939. Claims use since Aug. 19, 1938.

CHROMOTEX — This in stenciled letters describing cleaners. Filed by The Mathieson Alkali Works, New York, Feb. 2, 1939. Claims use since Jan. 21, 1939.

EMULSO—This in solid letters describing liquid soap. Filed by Rochester Germicide Co., Rochester, N. Y., Feb. 10, 1939. Claims use since March, 1922.

DISHADU—This in solid letters describing dish-washing preparation. Filed by An-Fo Manufacturing Co., Oakland, Calif., March 10, 1939. Claims use since Feb. 15, 1939.

H.E.B.—This in solid letters describing soap chips. Filed by H. E. Butt Grocery Co., Harlingen, Texas, March 11, 1939. Claims use since Feb. 23, 1939.

CODITE—This in solid letters describing detergents. Filed by I.R.L., Inc., New York, April 12, 1939. Claims use since April 10, 1939.

EEZ—This in solid letters describing insecticide. Filed by The Eez Co., Jamaica, N. Y., March 2, 1939. Claims use since April 1, 1937.

MI-SECRET — This in script letters describing insecticide. Filed by The Carr Chemical Co., Columbus, Ga., April 17, 1939. Claims use since April 6, 1939.

B-C-A — This in solid letters describing insecticides. Filed by Sherwin-Williams Co., Cleveland, April 20, 1939. Claims use since April 3, 1939.

L.P.H.—This in solid letters within circle which itself is within a six-pointed star, describing floor polish. Filed by Lucas Paul Hart, La Mesa, Calif., Feb. 8, 1939. Claims use since Aug. 1, 1939.

SALEM—This in script letters describing wax polish. Filed by Salem Chemical & Supply Co., Salem, Mass., April 10, 1939. Claims use since 1893.

MARNA—This in shaded letters within diamond shaped figure, describing cleaner. Filed by Marna Manufacturing Co., St. Louis, March 18, 1939. Claims use since March 6, 1939.

RADDIM—This in solid letters describing toilet soaps. Filed by H. E. Jarvis & Co., Ltd., London, April 18, 1939. Claims use since Nov. 1938.

SILVER DUST—This in outline letters describing soap. Filed by Lever Bros. Co., Cambridge, Mass., April 20, 1939. Claims use since May 29, 1931.

REPACKERS

NOW AN IMPROVED GRADE THAT MAKES A GOOD PRODUCT EVEN BETTER!

GENERAL CHEMICAL
Diamond Grade
TETRASODIUM PYROPHOSPHATE
ANHYDROUS

Repackers and soap manufacturers have been quick to recognize the remarkable qualities of General Chemical Anhydrous Tetrasodium Pyrophosphate as a soap builder and cleansing agent. . . . Now General Chemical Company announces an *improved physical form* of this widely accepted product—*the new Diamond Grade*—especially designed for use in "detergent mixtures". Here are only a few of its many advantages when used in cleansing mixtures and compounds:

WHY TETRASODIUM PYROPHOSPHATE IS AN EXCELLENT CLEANSER INGREDIENT

1. It removes dirt quickly *and holds it in suspension!*
2. It prevents formation of "rings"
3. It prevents formation of scale in machine washers.
4. It helps build more abundant suds.
5. It is "proof" against "iron" waters—washes clothes white.
6. It tends to prevent streaking on glass or glassware.
7. It is an ideal ingredient for preventing scale in cleansing mixtures for mechanical dish and bottle washers.

Fill in the coupon now for additional information on General Chemical Tetrasodium Pyrophosphate, Anhydrous, Diamond Grade.

❶ Diamond Grade is made in small thin flakes . . . the right size to prevent segregation in the package.

❷ Diamond Grade particles are the right size to give a uniform and intimate mix with other compounding agents.

❸ Diamond Grade dissolves quicker—it does not "bunch up" when the compound is poured into water.

GENERAL CHEMICAL COMPANY
Executive Offices:
40 RECTOR STREET
NEW YORK, N. Y.

GENERAL CHEMICAL COMPANY
Executive Offices:
40 RECTOR STREET NEW YORK, N. Y.

Gentlemen: Please send me additional information on General Chemical Diamond Grade Tetrasodium Pyrophosphate, Anhydrous.

Name.....

Company.....

Street.....

City..... *State*.....

Repacker..... *Manufacturer*.....

S-739

CAROID—This in solid letters describing dentifrice. Filed by American Ferment Co., New York, May 1. 1939. Claims use since 1922.

—— ♦ ——

Trade Marks Granted

366,887. Cleaning Compound. Roxborough Cleanser Co., Philadelphia. Filed Dec. 16, 1938. Serial No. 413,922. Published Feb. 21. 1939. Class 4.

366,904. Insecticides. Baldwin Laboratories Inc., Saegertown, Pa. Filed Dec. 22, 1938. Serial No. 414,092. Published Feb. 7, 1939. Class 6.

367,105. Dentifrice. Feld-Oral Co., New York. Filed Oct. 11. 1938. Serial No. 411,491. Published Feb. 28, 1939. Class 6.

367,107. Cleaning Preparation. General Dyestuff Corp., New York. Filed Oct. 14, 1938. Serial No. 411,601. Published Feb. 28. 1939. Class 4.

367,113. Soap. Misenta Pine Products, Inc., Buffalo. Filed Oct. 18, 1938. Serial No. 411,749. Published Feb. 28, 1939. Class 4.

367,166. Cleaning Preparations. Nymoc Products Co., Toronto. Filed Nov. 21, 1938. Serial No. 413,-021. Published Feb. 28. 1939. Class 4.

367,208. Insecticides. Great Northern Chemical Co., San Francisco. Filed Dec. 7, 1938. Serial No. 413,551. Published Feb. 28, 1939. Class 6.

367,261. Insecticides. McConnon & Co., Winona, Minn. Filed Dec. 28, 1938. Serial No. 414,268. Published Feb. 28, 1939. Class 6.

367,304. Chemical Water Softener. Research Products Corp., Madison, Wis. Filed Jan. 11, 1939. Serial No. 414,710. Published Feb. 21, 1939. Class 6.

367,325. Liquid Polish. Johnson & Son, Inc., Racine, Wis. Filed Jan. 18, 1939. Serial No. 415,022. Published Feb. 28, 1939. Class 16.

367,412. Cleaning Preparation. The Perfex Co., Ottumwa, Iowa. Filed Nov. 17, 1938. Serial No. 412,-891. Published Feb. 21. 1939. Class 4.

367,467. Cleaning Preparation. The Pioneer Manufacturing Co., Cleveland. Filed Dec. 30, 1938. Serial No. 414,362. Published March 7, 1939. Class 4.

367,491. Cleaning Compound. Economics Laboratory, Inc., St. Paul, Minn. Filed Jan. 16, 1939. Serial No. 414,868. Published March 7, 1939. Class 4.

367,545. Tooth Powder. The Gold Star Tooth Powder Co., Chicago. Filed March 26, 1938. Serial No. 404,518. Published March 7, 1939. Class 6.

367,559. Hair Tonic. Biecker & Stein, Philadelphia. Filed Aug. 9, 1938. Serial No. 409,383. Published March 14, 1939. Class 6.

367,567. Shampoo. Industrial Soap Co., St. Louis. Filed Oct. 3, 1938. Serial No. 411,225. Published Dec. 27, 1938. Class 6.

367,569. Insecticide. Alfred Turman, New York. Filed Oct. 10, 1938. Serial No. 411,474. Published March 7, 1939. Class 6.

367,573. Insecticidal Sprays. The Rototox Co., East Williston, N. Y. Filed Oct. 24, 1938. Serial No. 411,989. Published Feb. 28, 1939. Class 6.

367,580. Tooth Paste. Worcester Salt Co., New York. Filed Nov. 10, 1938. Serial No. 412,621. Published March 27, 1939. Class 6.

367,607. Insecticide. Thomas Rotobac Co., Chadbourn, N. C. Filed Dec. 22, 1938. Serial No. 414,122. Published March 7, 1939. Class 6.

367,622. Hair Dressing. Newbro Manufacturing Co., Atlanta, Ga. Filed Jan. 4, 1939. Serial No. 414,-502. Published March 14, 1939. Class 6.

367,628. Washing and Scouring Agent. General Dyestuff Corp., New York. Filed Jan. 10, 1939. Serial No. 414,656. Published March 14, 1939. Class 4.

367,642. Toothpaste. Stanley C. Brown, Ithaca, Mich. Filed Jan. 16, 1939. Serial No. 414,858. Published March 14, 1939. Class 6.

367,666. Insecticides. George A. Morty Co., Miami, Fla. Filed Jan. 27, 1939. Serial No. 415,300. Published March 14, 1939. Class 6.

367,673. Insecticides. Midland Chemical Laboratories, Inc., Dubuque, Iowa. Filed Feb. 3, 1939. Serial No. 415,556. Published March 14, 1939. Class 6.

367,774. Soap Powder. The Home Soap Co., North Haledon, N. J. Filed October 25, 1938. Serial No. 412,032. Published March 21, 1939. Class 4.

367,778. Toilet Soap. Colgate-Palmolive-Peet Co., Jersey City, N. J. Filed October 29, 1938. Serial No. 412,170. Published March 21, 1939. Class 4.

367,860. Cleaning Compounds. Economics Laboratory, Inc., St. Paul.

367,950. Dentifrices. The No-De-Ka Co., West Springfield, Mass. Filed May 7, 1938. Serial No. 406,-100. Published March 28, 1939. Class 6.

367,951. Sulphur and Sulphur-containing Products for the Control of Pests on Vegetation. General Chemical Company, New York. Filed May 21, 1938. Serial No. 406,584. Published March 28, 1939. Class 6.

367,952. Cleaning Preparations. General Chemical Co., New York. Filed May 23, 1938. Serial No. 406,638. Published March 28, 1939. Class 4.

367,977. Germicide. The Mathieson Alkali Works, New York. Filed October 18, 1938. Serial No. 411,745. Published December 27, 1938. Class 6.

367,982. Washing Fluid. Max L. Ponder, Aberdeen, N. C. Filed October 22, 1938. Serial No. 411,-967. Published March 28, 1939. Class 6.

368,001. Cleanser. Chick Laboratories, Bryan, Ohio. Filed December 1, 1938. Serial No. 413,357. Published March 28, 1939. Class 4.

368,035. Scalp Preparation. Three Fold Products Co., Louisville, Ky. Filed December 23, 1938. Serial No. 414,145. Published March 28, 1939. Class 6.

368,062. Fungicides. Mer-Q-Ree, Inc. Bethesda, Md. Filed January 12, 1939. Serial No. 414,748. Published March 28, 1939. Class 6.

WANTED: -- DIFFICULT PERFUMING JOBS

Have you any good, juicy perfuming problems? The knottier, the better! The M M & R perfuming experts, with brand new laboratories in a brand new building that's cool as an old wine cellar, are hankering for the perfuming problems that have you stymied. *(Not that they'll turn up their noses at furnishing you with suggestions for your every day requirements.)*

And since there's no time like the present for experimentation, let's have your problem children now and we'll set our experts, with all their new-fangled equipment, to work on them.

Perfume Oils for technical, liquid and hand soaps, insecticides, fly sprays, etc.



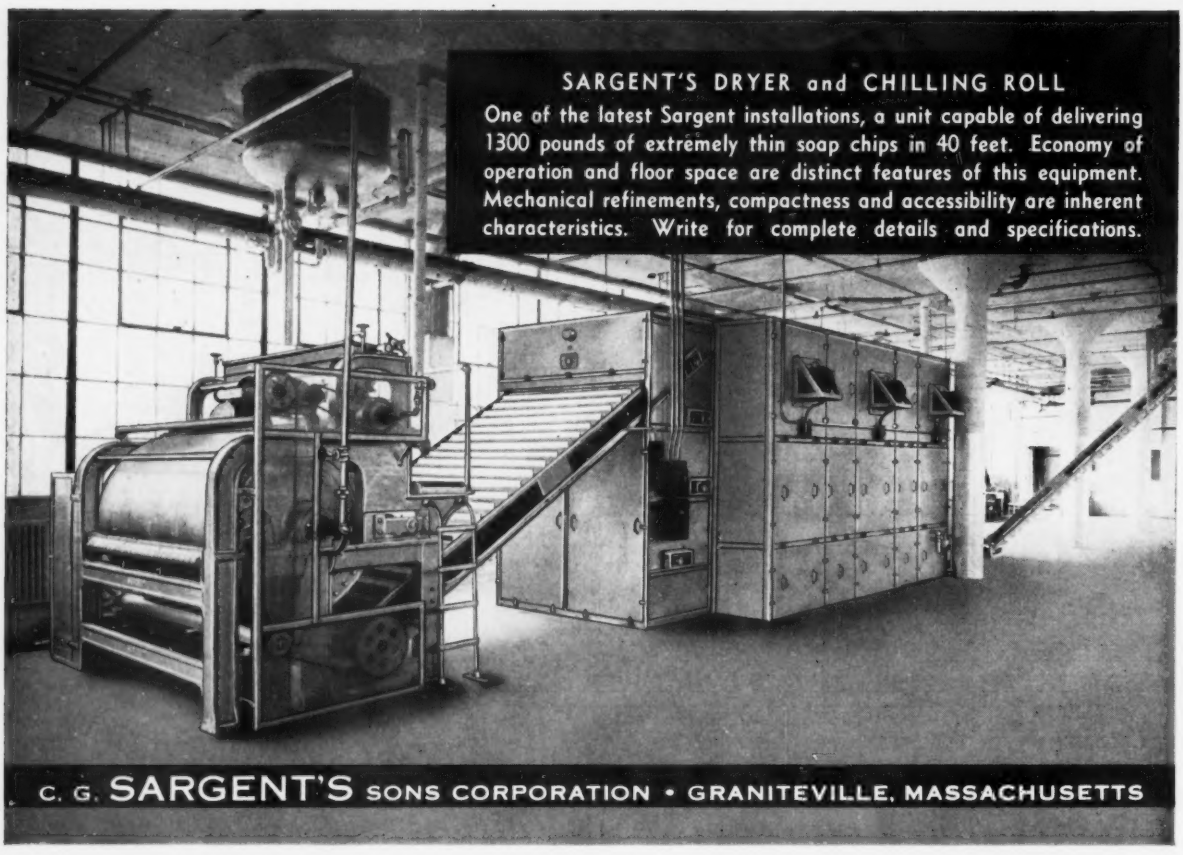
MAGNUS, MABEE & REYNARD, INC.

QUALITY ESSENTIAL OILS, BALSAMS AROMATIC CHEMICALS, ETC.. SINCE 1895

16 DESBROSSES ST. NEW YORK, N. Y.

M&R MAGNUS

CHICAGO: 180 N. WACKER DRIVE . . . CANADA: RICHARDSON AGENCIES. LTD., 454 KING ST., W., TORONTO



SARGENT'S DRYER and CHILLING ROLL

One of the latest Sargent installations, a unit capable of delivering 1300 pounds of extremely thin soap chips in 40 feet. Economy of operation and floor space are distinct features of this equipment. Mechanical refinements, compactness and accessibility are inherent characteristics. Write for complete details and specifications.

C. G. SARGENT'S SONS CORPORATION • GRANITEVILLE, MASSACHUSETTS

Raw Material Markets

As of June 28, 1939

NEW YORK — The soap and sanitary chemical raw material market exhibited a fair amount of activity this period with prices, on the whole, moving downward. This was opposite to the trend noted in the previous period. Cresylic acid showed a sharp drop in the chemical list while rosin prices moved upward. In the oils and fats market coconut and corn oil, tallow and grease moved downward, with linseed oil prices advancing. The usual number of changes were noted in the essential oil market with no definite price trend.

CHEMICALS

Cresylic Acid

Prices in the cresylic acid market dropped sharply this period on both the regular and low boiling grades. Quotations on the regular grade dropped to 49 and 50 cents per gallon, while the low boiling grade moved down to 55 and 56 cents per gallon.

Caustic Soda

Disappointment was expressed over the amount of business transacted in this market during the recent period. There was a leveling off by basic consuming industries. The soap industry was taking only enough for necessary replacements.

Rosin

Several price changes took place in this market, the trend on some grades being downward. Business continued along conservative lines with price movements narrow and offerings light. The tone of the market, on the whole, was steady with a fair inquiry noted.

OILS AND FATS

Coconut Oil

A reduction in the price of coconut oil this period brought the New York quotations down to 3⅛ cents per pound as compared to 3⅜ cents per pound in the previous period. Futures on the Pacific Coast were being quoted at 2⅞ to 3 cents per pound which amounted to about a ⅛ cent reduction from the month before. Inquiries were reported light.

Linseed Oil

The tone of the linseed oil market was steady despite the absence of any increase in buying interest this period. Movements on contract held up well, although new business was reported as being quiet. There was an announcement of further reduction in the estimate of the Argentine flaxseed crop and the fear that the American crop will suffer damage from insects. Prices on linseed oil moved upward from ¼ to ½ cent per pound on all grades.

Corn Oil

Crude corn oil was easier in line with competing product during this period. Although a fair inquiry was noted, offerings continued light. Quotations were shaded from 6 and 6¼ cents to 5⅝ and 5⅞ cents per pound.

Tallow

Quotations on city extra tallow were reduced ⅛ cent per pound this period. The easier tone was reflected in the local market for spot tallow in the absence of any improvement in demand. Transactions were taking place in moderate quantities.

Grease

Quotations in this market were also shaded this period. The reduction of as much as ½ cent per pound was a reflection of the decline in the price of tallow. A fair inquiry was noted.

PERFUMING MATERIALS

Anise Oil

Competition between sellers brought a decline of 5 cents in the price of anise oil this period, which is now being quoted at 65 to 67 cents per pound. Developments in South China meant that all shipments of this oil, in the future, would have to be through French Indo-China. There are ample stocks on hand in this country to cover present requirements.

Eucalyptus Oil

An exceptionally firm position was noted in this market, probably based on the prevailing cost of shipment oil. The influence of short stocks of oil in Australia for shipment made itself felt in an upward movement of quotations. The present range is 43 to 44 cents per pound as compared to the previous quotation of 38 to 39 cents per pound.

Geranium Oil

Prices on all grades of geranium oil were lowered this period, as much as 25 cents per pound on some grades. The lowered price of Bourbon oil was due to the decrease in import cost of this material in the early part of the period. Spot orders were competitive.

Lemon Oil

Sales of California oil rose sharply this period, the demand following seasonal lines. Although an increase was noted in the price of the domestic oil, it was still much under the price being quoted on the Italian oil, whose range is $3.10 to $4.00 per pound. The domestic oil is being sold at $2.50 per pound.

Goby Returns to France

Francois Goby, director of Tombarel Freres, Grasse, France, producers of perfuming materials, returned to France early last month, sailing aboard the *Ile de France*, June 13. He had been in the United States for five weeks visiting the American soap and perfumery trades with L. J. Zollinger, head of the New York firm Tombarel Products Corp.

TO MEET THE NEEDS of the Soap Manufacturer

ISCO CAUSTIC SODA

— Produced in our own plant at Niagara Falls, N. Y.

Flake • Crystals • Solid • Liquid

Various size packages.

MIRBANE OIL

(Nitro Benzol)

Prime Light Yellow.

ISCO LANOLIN

(Anhydrous and Hydrous)

Constant Quality

ZINC OXIDE

(Vieille Montagne)

Gold Seal — Green Seal

White Seal — Red Seal

GUMS AND WAXES

— Imported by us, cleaned and refined in our Jersey City Plant. 30 years experience on these lines qualifies us as specialists in all that the term implies.

OLEIC ACID • AQUAPHIL

We are always glad to submit samples and prices, or to match your samples for any particular purpose.

Are you receiving ISCO NEWS, bulletin of worthwhile hints and information, published several times a year for buyers of chemicals and allied lines?

INNIS, SPEIDEN & CO.

Established 1816

117-119 Liberty Street • • • NEW YORK

BOSTON • PHILADELPHIA • CHICAGO • CLEVELAND • GLOVERSVILLE, N. Y.

A National Institution

BOOKS

Modern Soap Making, by Dr. E. G. Thomssen and C. R. Kemp. The first entirely original American book on soap manufacture in several years. Thoroughly covers every phase of soap manufacture and glycerin recovery. Written by practical soap men....a truly practical book. Chapter headings: Raw Materials; Machinery and Equipment; Soap Making Methods; Soap Products; Glycerin Recovery and Refining; Analytical Methods; Appendix with reference tables, etc. 540 pages. $7.50 per copy in U. S. Add 50 cents for foreign postage.

Henley's Twentieth Century Book of Recipes, Formulas and Processes. A handy reference book listing 10,000 miscellaneous formulas, including special sections for soaps, polishes, insecticides, etc. 800 pages, $4.00.

The Industrial Chemistry of Fats and Waxes, by Hilditch. A study of the fats and waxes in relation to their use in industry. 450 pages, $7.50.

Hydrogenation of Organic Substances, by Ellis. 1930 revised edition of this well-known book, pre-eminent in the field of hydrogenation. 990 pages, $15.00.

Laundry Chemistry, by A. Harvey. A manual on the chemistry of laundry materials and methods. 120 pages, 5 x 7½, $1.75.

Pyrethrum Flowers, by Gnadinger. A complete compilation of all known facts on pyrethrum; its history, sources, evaluation, chemistry and uses. The problems involved in the manufacture of pyrethrum products are given thorough and lucid exposition. 396 pages, $5.00.

"Soap." Bound volumes for years 1927-28, and 1937 available at $12.00 each.

Blue Book. A Buyer's Guide, Catalogue and Business and Technical Reference Book. 210 pages, $1.00.

Vegetable Fats and Oils, by George S. Jamieson. 444 pages. An American Chemical Society Monograph. Covering classification, occurrence, properties, analytical methods, etc., of vegetable oils, fatty acid and other derivatives; also production and refining methods, $6.50.

Chemistry of Laundry Materials, by D. N. Jackman. A useful book for the laundry operator, containing valuable information on the chemistry of laundry materials. Discusses alkalies, soaps, bleaches, starches, also the newer detergents, synthetic soaps, etc. 230 pages, $2.50.

Modern Cosmetics, by Francis Chilson. Second edition with complete revision of text, addition of many new chapters, tested and revised new formulas, $6.00.

Owing to the large numbers of books supplied it is impossible to open accounts on individual book orders or to supply books on approval. Please send check with order.

MAC NAIR-DORLAND CO.

254 West 31st Street, NEW YORK CITY

Raw Material Prices

(As of June 26, 1939)

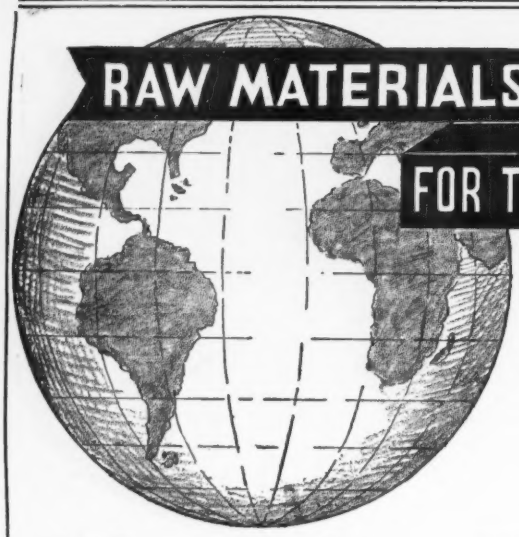
Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	$ .05¾	$ .06¼
Acid, Boric, bbls., 99½%	ton	106.00	138.00
Cresylic, drums	gal.	.49	.50
Low boiling grade	gal.	.55	.56
Muriatic, C. P., carboys	lb.	.06½	.08
Oxalic, bbls.	lb.	.10¾	.12
Adeps Lanae, hydrous, bbls.	lb.	.16	.18
Anhydrous, bbls.	lb.	.17½	.19
Alcohol, Ethyl, U.S.P., bbls.	gal.	4.56½	4.59½
Complete Denat., SD 1, drums, ex.	gal.	.27½	.30½
Alum. Potash lump	lb.	.036	.038
Ammonia Water, 26°, drums	lb.	.02	.02¼
Ammonium Carbonate, tech., bbls	lb.	.08	.12½
Bentonite 1, works	ton	—	16.00
Bentonite 2, works	ton	—	11.00
Bleaching Powder, drums	100 lb.	2.25	3.35
Borax, pd., cryst., bbls., kegs	ton	58.00	74.00
Carbon Tetrachloride, car lots	gal.	.66½	.83
L. C. L.	gal.	.73	1.17
Caustic, see Soda Caustic. Potash Caustic			
China Clay, filler	ton	10.00	25.00
Cresol, U.S.P., drums	lb.	.10	.10½
Creosote Oil	gal.	.13½	.14½
Feldspar (200 to 325 mesh)	ton	14.00	15.00
Formaldehyde, bbls.	lb.	.05¾	.06¼
Fullers Earth	ton	10.00	30.00
Glycerine, C. P., drums	lb.	.12½	.13
Dynamite, drums	lb.	—	Nom.
Saponification, drums	lb.	.09	.10
Soap, lye drums	lb.	.07⅝	.07¾
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	—	2.45
Mercury Bichloride, kegs.	lb.	.99	1.13
Naphthalene, ref. flakes, bbls.	lb.	.05¾	.06
Nitrobenzene (Mirbane) drums	lb.	.08	.09
Paradichlorbenzene, bbls., kegs	lb.	.12½	.15½
Petrolatum, bbls. (as to color)	lb.	.02⅝	.03⅞
Phenol (Carbolic Acid), drums	lb.	.14½	.15½
Pine Oils, bbls.	gal.	.50	.54
Potash, Caustic, solid	lb.	.06¼	.06¾
Flake, 88-92%	lb.	.07	.07½
Liquid, 45% basis	lb.	.03⅛	.03¼
Potassium Carbonate, solid	lb.	.06½	.06¾
Liquid	lb.	.03	.03½
Pumice Stone, powder	100 lb.	3.00	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	4.60	6.20
Grade K to N	bbl.	6.20	6.40
Grade WG to X	bbl.	7.15	7.50
Wood	bbl.	4.00	5.45
Rotten Stone, pwd. bbls.	lb.	.01¾	.02½
Silica	ton	20.00	27.00
Soap, Mottled	lb.	.04⅛	.04½
Olive Castile, bars	lb.	.27½	.30
Olive Castile, powder	lb.	.27	.38
Powdered White, Neutral	lb.	.20	.22
Olive Oil Foot, bars, 68-70%	lb.	.09	.09½
Green, U.S.P.	lb.	.11	.13½
Tallow Chips, 88%	lb.	.07⅝	.07⅞
Soda Ash. cont., wks., bags, bbls.	100 lb.	1.08	1.35
Car lots, in bulk	100 lb.	.90	.95
Soda Caustic, cont., wks., solid	100 lb.	—	2.30
Flake	100 lb.	—	2.70
Liquid, tanks, 47-49%	100 lb.	—	1.95
Soda Sal., bbls.	100 lb.	$1.10	$1.30
Sodium Chloride (Salt)	ton	15.00	15.60
Sodium Fluoride, bbls.	lb.	.07½	.08¾
Sodium Hydrosulfite, bbls.	lb.	.16	.17
Sodium Metasilicate, ground	100 lb.	2.20	3.15
Crystalline	100 lb.	2.90	4.20
Sodium Pyrophosphate	100 lb.	5.10	5.55
Sodium Silicate, 40 deg., drum	100 lb.	.80	1.20
Drums, 52 deg. wks.	100 lb.	1.40	1.80
Tar Acid Oils, 15-25%	gal.	.21	.28
Triethanolamine	lb.	.19	.20
Trisodium Phosphate, bags, bbls.	lb.	.02	.026
Zinc Oxide, lead free	lb.	.06½	.07¾

Oils — Fats — Greases

Babassu, tanks, futures	lb.	.06⅛	Nom.
Castor, No. 1, bbls.	lb.	.08¾	.09½
No. 3, bbls.	lb.	.08¼	.09
Coconut (without excise tax)			
Manila, tanks, N. Y.	lb.	—	.03⅛
Tanks, Pacific Coast, futures	lb.	.02⅞	.03
Copra, bulk, coast	lb.	.0175	—
Corn, tanks, mills	lb.	.05⅝	.05⅞
Cottonseed, crude, tanks, mill	lb.	.05¾	.05⅞
PSY, futures	lb.	.07	.07¼
Fatty Acids,			
Corn Oil, tanks	lb.	.08½	.08¾
Coconut Oil, tanks	lb.	.08¼	.08½
Cotton Oil, tanks	lb.	.07½	.07¾
Settled soap stock	lb.	.03⅛	.03¼
Boiled soap stock, 65%	lb.	.04⅛	.04¼
Foots, 50%	lb.	.01½	.01⅝
Linseed Oil	lb.	.10	.10½
Red Oil, bbls., dist. or sapon.	lb.	.07⅜	.08⅛
Tanks	lb.	.06½	.07½
Stearic Acid,			
Double pressed	lb.	.10½	.11½
Triple pressed	lb.	.13½	.14½
Greases, choice white bbls.	lb.	.05⅛	.05⅜
Yellow	lb.	.04½	.04¾
Lard, city	lb.	.06¼	.06½
Linseed, raw, bbls.	lb.	.0940	.0980
Tanks, raw	lb.	—	.0880
Boiled, 5 bbl. lots	lb.	—	.1020
Olive, denatured, bbls., N. Y.	gal.	.84	.85
Foots, bbls., N. Y.	lb.	.07	.07⅛
Palm, shipment	lb.	.03	—
Palm Kernel, shipment	lb.	.0340	Nom.
Sesame Oil, dms.	lb.	.09	.09¼
Soya Bean, domestic tanks, crude	lb.	.05½	—
Stearine, oleo, bbls.	lb.	.05¾	.06
Tallow, special, f.o.b. plant	lb.	.05	—
City, ex. loose, f.o.b. plant	lb.	.05⅛	—
Teaseed Oil, crude	lb.	.09½	.09¾
Whale, refined	lb.	.0770	.0790



RAW MATERIALS 1838-1939

FOR THE SOAP INDUSTRY

Oils Fats
Chemicals
Fatty Acids
White Mineral Oils
Petrolatums

FROM ALL PARTS OF THE WORLD

Mineral Oils — Petrolatums

Fatty Alcohols — Special Fatty Acids

Castor Oil	Olive Oil Foots	Fatty Acids	Tallow	Modified Soda
Cocoanut Oil	Peanut Oil	Lard Oils	Grease	Silicate Soda
Corn Oil	Perilla Oil	Neatsfoot Oil	Lanolin	Metasilicate
Cottonseed Oil	Rapeseed Oil	Oleo Stearine	Caustic Soda	Tri Sodium Phosphate
Palm Oil	Sesame Oil	Stearic Acid	Soda Ash	Di Sodium Phosphate
Palm Kernel Oil	Soya Bean Oil	White Olein	Caustic Potash	Chlorphyll
Olive Oil	Teaseed Oil		Carbonate Potash	Superfatting Agent
			Sal Soda	

WELCH, HOLME & CLARK CO., Inc.

563 GREENWICH STREET — ESTABLISHED 1838 — NEW YORK CITY

KRANICH SOAPS

PURE POWDERED SOAPS

Castile, U.S.P. — Coconut, Pure — White Neutral

Palm, Pure — Castor, Pure

POTASH SOAPS

Complete line of Shampoos, Shampoo Bases, Liquid Soaps, Oil Soaps, Pine Scrub and Automobile Soap.

For the Trade

KRANICH SOAP COMPANY, Inc.

54 Richards Street — Brooklyn, N. Y.

(As of June 26, 1939)

Essential Oils

Almond, Bitter, U.S.P.	lb.	$1 90	$2.00
Bitter, F. F. P. A.	lb.	1.95	2.05
Sweet, cans	lb.	.56	.57
Anise, cans, U.S.P.	lb.	.65	.67
Bay tins	lb.	1.20	1.25
Bergamot, coppers	lb.	3.65	3.85
Artificial	lb.	1.25	1.30
Birch Tar, rect. tins	lb.	.60	.65
Crude, tins	lb.	.15	.18
Bois de Rose, Brazilian	lb.	1.55	1.60
Cayenne	lb.	1.50	1.75
Cade, cans	lb.	.41	.44
Cajeput, native, tins	lb.	.50	.52
Calamus, tins	lb.	5.50	6.00
Camphor, Sassy, drums	lb.	.28	Nom.
White, drums	lb.	.27	Nom.
Cananga, native, tins	lb.	1.05	1.25
Rectified, tins	lb.	1.50	1.80
Caraway Seed	lb.	1.65	1.70
Cassia, Redistilled, U.S.P.	lb.	.85	.90
Cedar Leaf, tins	lb.	.60	.62
Cedar Wood, light, drums	lb.	.28	.30
Citronella, Java, drums	lb.	.27	.28
Citronella, Ceylon, drums	lb.	.33	.34
Clove, U.S.P., tins	lb.	.98	—
Eucalyptus, Austl., U.S.P., cans	lb.	.43	.44
Fennel, U.S.P., tins	lb.	1.05	1.10
Geranium, African, cans	lb.	2.65	3.50
Bourbon, tins	lb.	2.40	3.00
Turkish	lb.	1.85	2.00
Hemlock, tins	lb.	.65	.70
Lavender, U.S.P., cans	lb.	2.00	4.75
Spike, Spanish, cans	lb.	1.05	1.10
Lemon, Ital., U.S.P.	lb.	3.10	4.00
Cal.	lb.	2.50	—
Lemongrass, native, cans	lb.	.38	.40
Linaloe, Mex., cases	lb.	1.25	1.30
Nutmeg, U.S.P., tins	lb.	1.12	1.15
Orange, Sweet, W. Ind., tins	lb.	1.70	1.75
Italian cop	lb.	2.00	3.00
Distilled	lb.	.50	—
California	lb.	1.00	—
Origanum, cans, tech	lb.	.90	1.00
Patchouli	lb.	3.35	6.50
Pennyroyal, dom.	lb.	2.10	2.15
Imported	lb.	1.85	1.90
Peppermint, nat., cans	lb.	2.05	2.30
Redis., U.S.P., cans	lb.	2.30	2.60
Petitgrain, S. A., tins	lb.	.80	.85
Pine Needle, Siberian	lb.	.95	1.00
Rosemary, Spanish, tins	lb.	.56	.75
drums	lb.	.51	.70
Sandalwood, E. Ind., U.S.P.	lb.	4.75	4.80
Sassafras, U.S.P.	lb.	.90	1.00
Artificial, drums	lb.	.36	.37
Spearmint, U.S.P.	lb.	1.70	1.75
Thyme, red, U.S.P.	lb.	.85	1.25
White, U.S.P.	lb.	.85	1.45
Vetivert, Bourbon	lb.	3.50	15.00
Ylang Ylang, Bourbon	lb.	2.50	3.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.30	$1.45
Amyl Cinnamic Aldehyde	lb.	2.00	2.25
Anethol	lb.	1.00	1.05
Benzaldehyde, tech.	lb.	.60	.70
U. S. P.	lb.	.85	.95
Benzyl, Acetate	lb.	.44	.49
Alcohol	lb.	.63	.68
Citral	lb.	1.10	3.10
Citronellal	lb.	.75	.80
Citronellol	lb.	1.60	1.85
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	2.75	4.65
Cymene, drums	gal.	.90	1.25
Diphenyl oxide	lb.	.50	.55
Eucalyptol, U.S.P.	lb.	.55	.57
Eugenol, U.S.P.	lb.	1.70	2.15
Geraniol, Domestic	lb.	.67	3.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	1.20	2.50
Heliotropin	lb.	1.80	2.20
Hydroxycitronellal	lb.	2.00	2.50
Indol, C. P.	oz.	2.00	2.13
Ionone	lb.	1.30	4.05
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	2.10	6.30
Linalyl Acetate	lb.	1.35	2.25
Menthol	lb.	3.00	3.35
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.10	2.30
Paracresol	lb.	4.50	6.00
Salicylate, U.S.P.	lb.	.35	.37
Musk Ambrette	lb.	3.25	3.65
Ketone	lb.	3.40	3.80
Xylene	lb.	1.00	1.25
Phenylactaldehyde	lb.	2.10	3.50
Phenylacetic Acid	lb.	1.75	3.00
Phenylethyl Alcohol	lb.	2.50	3.35
Rhodinol	lb.	5.55	10.80
Safrol	lb.	.50	.53
Terpineol, C. P., 1000 lb. drs.	lb.	.23	.24
Cans	lb.	.25	.30
Terpinyl Acetate, 25 lb. cans	lb.	.77	1.00
Thymol, U.S.P.	lb.	1.40	1.45
Vanillin, U.S.P.	lb.	2.10	2.35
Yara Yara	lb.	1.25	1.56

Insecticide Materials

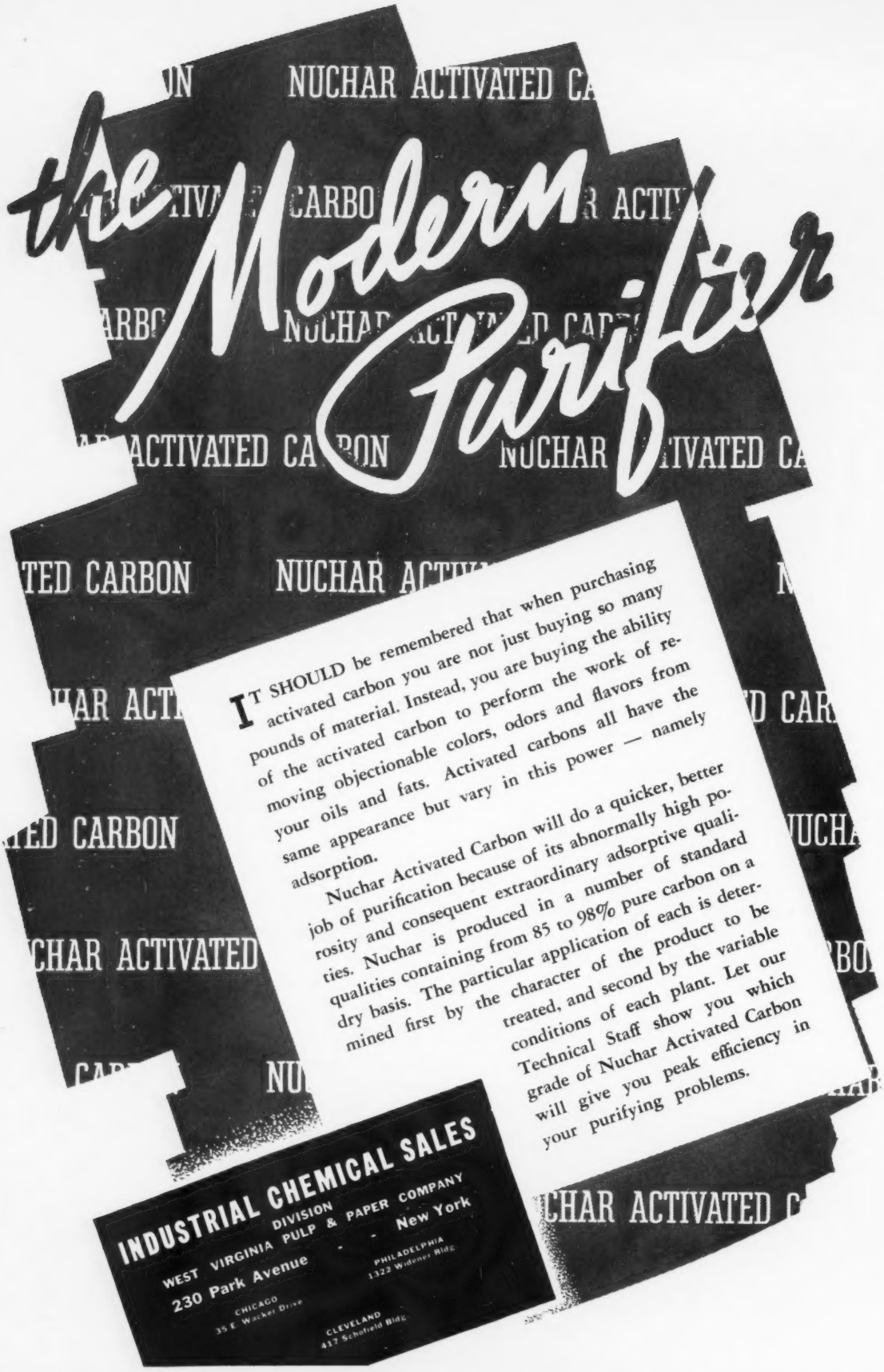
Insect Powder, bbls.	lb.	.30	.31
Concentrated Extract			
5 to 1	gal.	1.60	1.70
20 to 1	gal.	6.25	6.35
30 to 1	gal.	9.20	9.35
Derris, powder—4%	lb.	.18	.28
Derris, powder—5%	lb.	.24	.34
Cube, powder—4%	lb.	.20	.24
Cube, powder—5%	lb.	.24	.28

Gums

Arabic, Amb. Sts.	lb.	.10½	.11
White, powdered	lb.	.13	.14
Karaya, powdered No. 1	lb.	.14	.23
Tragacanth, Aleppo, No. 1	lb.	2.25	2.85
Flake	lb.	.50	1.00

Waxes

Bees, white	lb.	.37	.39
African, bgs.	lb.	.19	.20
Refined, yel.	lb.	.25½	.26
Candelilla, bgs.	lb.	.15½	.16½
Carnauba, No. 1.	lb.	.41½	.42
No. 2, N. C.	lb.	.35½	.36
No. 3, Chalky	lb.	.29½	.30½
Ceresin, yellow	lb.	.08½	.11½
Paraffin ref. 125-130	lb.	.039	.040


NUCHAR ACTIVATED CA
the Modern Purifier
ACTIVATED CARBON
NUCHAR ACTIVATED CA
TED CARBON
NUCHAR ACTI
AR ACTI
D CAR
ED CARBON
UCHA
CHAR ACTIVATED
BO
CHAR ACTIVATED C
IT SHOULD be remembered that when purchasing activated carbon you are not just buying so many pounds of material. Instead, you are buying the ability of the activated carbon to perform the work of removing objectionable colors, odors and flavors from your oils and fats. Activated carbons all have the same appearance but vary in this power — namely adsorption.
Nuchar Activated Carbon will do a quicker, better job of purification because of its abnormally high porosity and consequent extraordinary adsorptive qualities. Nuchar is produced in a number of standard qualities containing from 85 to 98% pure carbon on a dry basis. The particular application of each is determined first by the character of the product to be treated, and second by the variable conditions of each plant. Let our Technical Staff show you which grade of Nuchar Activated Carbon will give you peak efficiency in your purifying problems.
INDUSTRIAL CHEMICAL SALES
WEST VIRGINIA PULP & PAPER COMPANY
DIVISION
230 Park Avenue - - New York
CHICAGO
35 E. Wacker Drive
PHILADELPHIA
1322 Widener Bldg.
CLEVELAND
417 Schofield Bldg.

Production Section

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries.*

Methyl Cellulose in Soap

Also in Floor Waxes and Shoe Cleaners

THE term methyl cellulose applies to a number of products which differ in the degree of methylation, their molecular complexity according to the extent of degradation of the cellulose, and therefore in the viscosity of their solutions. Methyl cellulose dissolves in cold water to give a colorless or pale yellow solution. It has a tendency to coagulate in hot water but redissolves on cooling. In Europe it is sold as white granules or cream-colored flakes.

Solutions of methyl cellulose are compatible with most other freshly prepared colloids. They are stable at low temperatures and to the addition of boric, phosphoric, acetic and tartaric acids. They are not coagulated by electrolytes such as sodium chloride, potassium iodide, or potassium chlorate. They are coagulated by tannins, phenols and polybasic acids. They support the addition of considerable quantities of alcohol or glycerine and then become less easy to coagulate. Addition of 10 per cent of alcohol prevents coagulation of methyl cellulose by heat. Hydrogen peroxide in strong concentration decomposes the material. To prepare a concentrated solution, the flakes are allowed to stand in water for several hours or preferably overnight, when they first swell and then dissolve. Solutions of methyl cellulose are neutral, giving a pH value of 7.5, and are stable to alkali and to fairly concentrated acid.

The strong emulsifying properties of methyl cellulose make it useful for a number of applications, as in emulsions of oils, fats, waxes, etc. In aqueous solution the material possesses distinct lathering power. Emulsions of fatty materials and hydrocarbons can be made with the aid of methyl cellulose that are more homogeneous than those obtained with gum tragacanth. In general fatty oils are more readily emulsified than mineral oils. Material to be emulsified is introduced with vigorous stirring into the aqueous solution of methyl cellulose at a temperature chosen so that the first material is in the liquid state. An emulsion of oil can be prepared at ordinary temperatures, that of solid substances at a temperature about 5° C. above the melting point of the solid. The solution of methyl cellulose should be warmed to the same temperature. When it is desired to incorporate the emulsifying agent in a product, small-scale tests should first be made in order to determine the best conditions and method of preparation in order to get the desired result.

Use in Soap

Methyl cellulose is a valuable soap aid as it lowers the surface tension of water and helps create a more persistent and copious lather. It possesses some detergent power of its own and thus permits decreasing the amount of fatty acids present without lowering the quality of the soap. It aids the keeping quality of soap and prevents efflorescence. In the manufacture of milled soap, addition of methyl cellulose increases plasticity so that toilet soap, shaving soap, etc. are easier to work up.

To prepare a methyl cellulose solution for use in soap, add to 40 kilograms of boiling water, 4 kg. of caustic potash or caustic soda, 40° Be., stir and add 4 kg. of methyl cellulose powder. Mix well and let stand for a half hour, then add with stirring 52 kg. of cold water. Mix again the next day, when a smooth mucilaginous product is obtained. This gives a very unctuous soap when caustic potash was used in its preparation.

A suitable addition to paste soap is to add per 100 kg. of soap, a mixture of 20 kg. of sodium silicate, 36-38° Be., 3 kg. of caustic soda, 40° Be., and 3 kg. of water, all

brought to a temperature of 70-80° C., after which 6 kg. of a cold solution of methyl cellulose are added little by little. By this means a hard soap with a fatty acid content of 48 per cent can be obtained.

A transparent soft soap is prepared as follows: 1000 kg. of oil or fatty acid are saponified with caustic potash and the necessary potash added, giving 2200 kg. of soap base. To this add 150 kg. of potassium hypochlorite, 10° Be., 150 kg. of a solution of potassium chloride, 10-20° Be., 100 kg. of sodium silicate, 36° Be., 350 kg. of methyl cellulose solution, and 50 kg. of caustic potash, 40° Be. This soap becomes transparent after 2-3 days.

White Shoe Cleaners

Methyl cellulose has been applied with success in the preparation of white shoe cleaner, to replace gum tragacanth, gum arabic, starch and glue. An unctuous product is obtained which does not settle out, which has a high covering power, and which can be rubbed up as desired. The viscosity of the solution used depends on whether a liquid or paste product is to be prepared. Pigments which may be mixed with the cellulose solution for white shoe cleaner include calcium carbonate, lithopone, titanium dioxide, kaolin, and zinc oxide.

A cream of high covering powder which is easy to spread and which can be packed in tubes is obtained by mixing 470 grams of heavy calcium carbonate with 270 grams of water, then adding 260 grams of a solution containing 20 grams of high-viscosity methyl cellulose in 240 grams of water.

Another cream is prepared by mixing 50 parts of a 5 per cent solution of methyl cellulose with 9 parts of water, 1 part of turkey red oil, 24 parts of precipitated chalk, 8 of zinc white and 8 parts of titanium white. The materials are ground together to give a homogene ous paste and may be sieved if desired.

To prepare a white liquid, add to 25 parts of a 5 per cent solution of methyl cellulose, 15 parts of water and 0.5 part of turkey red oil. Mix with 10 parts of precipitated chalk and 2 parts of titanium white. Grind together to insure thorough mixing and dilute with 41.5 parts of cold water, stirring well.

Floor Waxes

Methyl cellulose is particularly applicable in making stable emulsions of water-base floor wax, permitting the amount of soap to be reduced. The luster of the wax is improved on drying and made less subject to imprinting and to staining or spotting. The proportion of potash can also be decreased so that the product is less alkaline or can even be made neutral. A high proportion of mineral wax such as ozokerite and ceresine can be emulsified with the aid of methyl cellulose.

A stable emulsified floor wax can be obtained with 40 per cent of a mixture of 1 part of beeswax, 1 part of paraffin, 1 per cent of soap, 0.33 per cent of soda ash, and 2.6-2.7 per cent of methyl cellulose. The soap and soda ash are dissolved in boiling water, and an aqueous 5 per cent solution of methyl cellulose added. This is warmed and the melted wax added. The product is then stirred while cooling to give a good emulsion.

A wax which spreads well and is very resistant to wear is prepared according to the following formula: 63 parts of a 5 per cent aqueous solution of methyl cellulose are mixed into 1 part of potassium carbonate and 3 parts of soap dissolved in 37 parts of boiling water. The mixture is cooled to 70° C. and 100 parts of a melted mixture containing 1 part of beeswax, 1 part of paraffin and 8 parts of ceresine added. Heating is continued for a half hour, the mixture is stirred well, the amount of water which has evaporated is replaced, and 96 parts of white spirit or turpentine substitute are gradually added. The whole is stirred until cool. *Revue des Produits Chimiques* 42, 193-8, 225-8 1939).

(*Editor's Note*: Methyl cellulose is sold in U. S. under trade name of *Tylose* by General Dyestuffs Corp., N. Y.)

—— ♦ ——

Bleaching Potash Soaps

A system whereby the characteristic color and odor can be removed from potash soaps has been patented by the Belgian firm of Solvay (French Patent No. 829,156). Objectionable color and odor exist in this type of soap whenever it is made from an oil which has not been carefully refined, but the soap can be bleached. The addition of bleaches has generally raised the problem of even mixing and of removing the added liquid necessary to dissolve the bleach.

Solvay's method is to add the bleaching substance to the potash solution, or better still, to form it in the potash by passing chlorine through the potash solution just before it is added to the oil or fat used. This will form a certain amount of potassium hypochlorite in the solution, which will bleach the soap very effectively and as rapidly as it is formed. *Manufacturing Perfumer* 4, 166 (1939).

—— ♦ ——

Use for Powdered Soap

A saponaceous composition for neutralizing toxic gases is made from powdered soap and a chlorinated powder prepared by passing chlorine into a mixture of caustic soda or caustic potash solution, soda ash and chalk. The chlorinated composition is dried and powdered. The two powders are mixed with water immediately before use to form an adsorbent cream jelly. Louis A. Rouget and Jean D. Rouget. British Patent No. 496,752.

—— ♦ ——

Dispersing Calcium Soaps

The sodium salt of a sulfonic acid of methyl *N*-phenoxyacetyl-*N*-undecylcarbamate is prepared by sulfonating the methyl ester and neutralizing the product with caustic soda. The product has strong capillary activity and is used as a dispersing agent for calcium soaps. J. R. Geigy A.-G. Swiss Patent No. 199,782.

Products and Processes

Window Cleaner

A paste product for cleaning and polishing windows, mirrors, windshields, etc. is prepared by dissolving 10 parts of curd soap in 40 parts of warm water and 20 parts of denatured alcohol. Ammonia is added until complete solution is obtained. This solution is worked up with a mixture of 50 parts of precipitated chalk, 30 parts of kieselguhr and 20 parts of kaolin to give a paste. The latter is allowed to stand for 1-2 days and is then kneaded up and transferred to containers. From 10 to 15 parts of glycerine may be used in place of a corresponding amount of water to keep the product moist. *Seifensieder-Ztg.* **66,** 292 (1939).

Soap Shaving Brush

A shaving brush is mounted on a base detachable from a hollow resilient handle. The handle serves as a reservoir for liquid soap. A duct conveys the soap from the reservoir to the brush and terminates in a multiple outlet for distributing the soap throughout the brush. Murdock R. Hattie. Canadian Patent No. 381,357.

Astringent Shaving Cream

Shaving cream is admixed with a powerfully astringent metallic salt such as zinc sulfate and with a protective colloid such as gum tragacanth to prevent the salt from breaking down the cream base. Grace W. Carlson. U. S. Patent No. 2,145,583.

Cyclohexylamine Oleate

The main defect of hydrocarbon oils used in the textile industry lies in the fact that they are retained by the fiber. It was found that when spindle oil was previously emulsified with cyclohexylamine oleate obtained from the high-pressure hydrogenation of aniline, and then applied to fibers, it could easily be removed with ordinary washing agents and any remaining hydrocarbon oil no longer exerted the obstructive effect upon dyeing which was usually believed to occur. The outstanding defect of this organic base soap is its peculiar odor. Ato Mugisima. *J. Soc. Chem. Ind. Japan* **42,** Suppl. binding 17-18 (1939).

Dry-cleaning Soap

A simply prepared soap soluble in naphtha is made by the partial saponification of fatty acids; 100 parts of tallow fatty acids are warmed to 80-90° C. and 25-30 parts of 38° Be. caustic soda allowed to flow in slowly with stirring. The lye solution is also heated to 80-90°. A liquid soap can be prepared similarly by using caustic potash. *Seifensieder-Ztg.* **66,** 292 (1939).

Toilet Soap Base

To toughen a toilet-soap base which is left "short" by the exclusion of rosin, the inclusion of a small proportion of soybean oil is recommended, making the pan charge:

	Per Cent
Coconut oil	25
Marrow fat	20
Tallow	43
Soybean oil	2

The presence of the soybean oil should help prevent blistering and cracking of the soap tablets. *Soap, Perfumery and Cosmetics* **12,** 443 (1939).

Synthetic Soap Fats

The soap fatty acids obtained in paraffinic oxidation now being used in Germany, consist essentially of a mixture of the saturated fatty acids from C_{10} to C_{20}, including those with an odd number of carbon atoms. A fatty acid mixture of this composition is not obtainable from any natural fat, since only fatty acids with an even number of carbon atoms occur in natural products, and these are generally mixed with unsaturated fatty acids. It is impossible to replace a particular fat in a batch of natural fats by synthetic fatty acids. The special properties of synthetic fatty acids should rather be kept in mind when selecting the fat mixture for a batch of soap. The absence of oleic acid can be made good by including lard.

Depending on the method of production and refinement, synthetic fatty acids contain varying amounts of impurities such as oxy-acids, lactones, estolides, keto-acids and unsaponifiable matter, which are absent from natural products. Ester value, hydroxyl value, and carbonyl value should be as low as possible. The iodine value is generally below 10.

Synthetic fatty acids cannot be used in the proportion of 100 per cent in milled soaps. However, if specially active fatty-acid groups are present in the synthetic mixture, the resulting soaps may be even superior in some respects to soaps made exclusively from natural fats. Soaps obtained from synthetic fatty acids are not necessarily inferior to those made from natural fats, and may be just as good if the remaining constituents of the batch are correctly selected. A. Foulon. *Manufacturing Perfumer* **4,** 150-1 (1939).

Alumina Cream in Soap

Alumina cream in the form of a jelly with a high water content makes a good addition to soap because of its adsorptive action. To get the best effect the alumina should be in the form of a pasty hydroxide, such as is formed by adding ammonia to a solution of an aluminum salt. The concentration of aluminum salt should be 1-5 per cent, preferably about 2 per cent. To prepare a suitable cleansing agent of this kind, dissolve 100 grams of aluminum sulfate in 6 liters of water and add to this 77 grams of aqueous ammonia corresponding to 17.7 grams of ammonium hydroxide. The precipitate of aluminum hydroxide which forms is filtered and washed well. Such a product has marked emulsifying power for dirt and for fat par-

ticles. The cream is particularly effective as an addition to washing and bleaching agents containing chlorine as it has a stabilizing effect on the chlorine. Walter Meyer. *Seifensieder-Ztg.* **66,** 267-8 (1939).

Soap Essential Oil Solvent

Concentrated aqueous solutions up to 40 per cent of essential oils can readily be prepared from these otherwise immiscible substances with the aid of soap as dissolving agent. Such solutions remain transparent on further dilution with water to any extent. Potassium oleate and linoleate have particularly good solvent action and are used in 20 per cent solution. In view of the economy and ease of preparation and the possibility of presenting hitherto immiscible liquids dissolved in water, it is anticipated that solutions of this type will prove valuable in compounding insecticides, in deodorizing rooms, and in the manufacture of toilet preparations. Adrien Albert. *J. Soc. Chem. Ind.* **58,** 196-9 (1939).

Mixed Sulfonated Detergent

Mixtures of esters of naphthenic and carboxylic acids obtained by oxidizing petroleum hydrocarbons with unsaturated aliphatic acids, are sulfonated in the presence or absence of aromatic hydrocarbons to give detergent products. G. S. Petrov. Russian Patent No. 46,319; through Chem. Abs.

Glycerine Recovery

Glycerine is recovered from printers' roller waste, hectograph masses or similar cellular material by treating it with a solution of an electrolyte adapted to coagulate the colloids therein, the solution being of such concentration that the cell walls are converted into semipermeable membranes through which the glycerine and water pass. Suitable electrolytes include sodium chloride, sodium sulfate, magnesium sulfate etc. dissolved in water, and spent lyes or sweet water from soap manufacture. John G. Haller and George McLaren. British Patent No. 496,681.

Soap Perfumes

Toilet soap perfumes are often selected for a particular note. A carnation blend contains:

	Parts
Clove oil	40
Java citronella oil	5
Isoeugenol	20
Rhodinol EX Java citronella oil	5
Amyl salicylate	5
Terpineol	15
Benzyl acetate	3
Musk	1
Vanillin	1

As carnation perfumes are based on isolates from the clove family and as these rapidly darken white soap, the tablets must be colored. For this purpose a shade ranging from red to salmon may be obtained with a mixture of Rhodamine B and tartraphenine. The shade gradually deepens as the soap ages.

An inexpensive palm and olive blend of the orchid type suitable for a low-price market but at the same time of good quality, is as follows:

	Parts
Terpineol	20
Bois de rose oil	10
Bergamot oil	10
Lavandin	10
Patchouli oil	10
Heliotropin	2

The color for a palm and olive tablet may vary from light green to deep olive green. For the first chlorophyl is probably the best color agent. For the second a synthetic dye will supply a good color.

An eau-de-Cologne blend is based on an orange-blossom odor:

	Parts
Methyl anthranilate	2
Linalol	3
Linalyl acetate	3
Bergamot oil	2
Lavandin	2
Lemon oil	1
Rosemary oil	1

Manufacturing Perfumer **4,** 156-7 (1939).

Fatty Acid Liquid Soap

A 24 per cent liquid soap which does not become turbid nor gelatinize at low temperatures is made from fatty acids by the semi-boiled process. For this use 21 parts of coconut oil fatty acids which may be replaced in part by palm-kernel oil fatty acids, 3 parts by castor oil fatty acids, about 11 parts of caustic potash, 50° Be. diluted with 7 parts of water, 58 parts of distilled or softened water which contains 2 parts of potassium chloride dissolved in it. The salt is to suppress hydrolysis. Glycerine or alcohol may be added to make the soap thin-flowing and decrease the tendency toward turbidity. The product is allowed to stand at a low temperature for 1-2 weeks and is then filtered. *Seifensieder-Ztg.* **66,** 249 (1939).

Protection of Colored Wrappers

A study was made of the protective properties of 12 different colored samples of cellophane in relation to the acceleration by light of the oxidation of olive oil. The colors used were red, orange, violet, grass-green, lemon-yellow, royal blue, buff-brown, sea-green, sky-blue, primrose-yellow, pink and mauve. The first five colors showed the most protection. The remainder showed relatively low protection; these were all of a lightly dyed or pigmented type. There is little doubt that the ultra-violet rays are mainly responsible for the accelerating action of light on the oxidation of olive oil. No marked accelerating properties could be associated with visible wave-lengths. H. L. G. Barton and A. Davies. *J. Soc. Chem. Ind.* **58,** 189-93 (1939).

Fats from Spent Lye

To hot spent lye is added with agitation fatty acid or inorganic acid in such an amount as to have two molecules of fatty acid available per molecule of alkali. The acid soaps separate and are removed. The solution is treated to recover glycerine. M. M. Nikiforov and L. A. Magnitskii. Russian Patent No. 47,767.

Olive-Palm Soap

An olive-palm soap stock is made from the following fat mixture: 45 per cent of fresh beef tallow, titre about 43° C., 25 per cent of bleached palm oil, 20 per cent of olive oil or of good-quality sulfur olive oil, and 10 per cent of coconut oil. *Seifensieder-Ztg.* **66,** 291 (1939).

Cyclohexanol Soaps

SOLVENT soaps such as cyclohexanol soaps find application in nearly all phases of textile cleansing as well as in laundries. Normally they contain 6-15 per cent of solvent, inclusive of the emulsifying agent when the latter has solvent properties, a proportion which serves to reenforce the ordinary detergent action of soap. In combination with ordinary soaps, cyclohexanol and methyl cyclohexanol develop effects similar to those of turkey red oils.

Both cyclohexanol and methyl cyclohexanol possess high solvent power for fats, oils, waxes, resins, mineral oils, highly oxidized fats, metallic salts of fatty and resin acids and the like. They are miscible in all proportions with benzine, benzol, tetralin, decalin, oil of turpentine, chlorinated hydrocarbons and similar organic solvents. The following liquid and soft soaps fulfill all technical requirements:

	Parts By Weight
1. Linseed oil	500
Cyclohexanol	200-300
Caustic potash, 50°Be.	199
Water	1208
2. Linseed oil fatty acids	500
Methyl cyclohexanol	750
Caustic potash, 50°Be.	208
Water	292
3. Linseed oil	500
Methyl cyclohexanol	300
Caustic potash, 50°Be.	100
Caustic soda, 36°Be	120
Water	230

The ingredients of each batch are stirred together in a kettle heated by indirect steam until clear solution and clear solubility in water are attained, when the mass is tested for alkalinity.

A textile preparation may be made starting with finished soap by adding 10.5 parts of cyclohexanol or methyl cyclohexanol to a solution of 10 parts of Marseilles soap in 200 parts of water. This and the products made by the preceding formulas possess good lathering power.

Homogeneous water-soluble preparations are also obtainable by combining cyclohexanol with other solvents such as benzine, benzol, carbon tetrachloride, tetralin etc., as in the following:

	Parts By Weight
Coconut oil	51
Linseed oil	42
Cyclohexanol	130
Caustic potash, 50°Be.	42
Water	615
Carbon tetrachloride	120

Other solvents in place of carbon tetrachloride can be used in about the same proportion. J. Davidsohn and A. Davidsohn. *Soap, Perfumery and Cosmetics* **12,** 418-20 (1939).

—— ♦ ——

Water in Sulfonated Oils

The xylene-distillation method for determining water content is unsuitable for application to sulfonated oils containing alcohol. The method for determining water in oils and fats worked out by Kaufmann and Funke has accordingly been adapted to the determination of water in sulfonated oils. The reagents, acetyl chloride, pyridine and aniline, have to be used in larger amounts with sulfonated oils than with fats. With sulfonated oils they are increased to 20 cc. of 0.5 normal solution, 10 cc., and 10 cc. respectively. Check results with the xylene method were obtained when the composition of the sulfonated oil was such as to permit determination of water content by either method. H. Finken and H. Holters. *Fette und Seifen* **46,** 70 (1939).

—— ♦ ——

Laundering Shrinkage

The processes of spinning, weaving and finishing result in a condition of unnatural tension or strain in cotton fabric. When these strains are removed by washing a more or less irreversible shrinkage effect occurs. The laundering process cannot produce shrinkage in a cotton fabric which is free from strains introduced during the process of manufacture. In the two best known preshrinking processes, Rigmel and Sanforizing, the strains latent in the cloth can be removed by a process of compression shrinkage, in which the manufacturing strain is exactly compensated for by an equal amount of compression strain. C. H. Bayley. *Laundry and Dry Cleaning J. of Canada,* May, 1939.

—— ♦ ——

Shaving Cream

A jelly-like shaving cream is formed by mixing stearic acid 50 parts, triethanolamine 3, lanolin 9, water 160-212, gum tragacanth 2.5-3.75, and boric acid 1 part. Stamford White. U. S. Patent No. 2,148,285. A somewhat similar composition contains stearic acid 50 parts, lanolin 7, mineral oil 6, triethanolamine 2, borax 2, water from 240 parts to a quantity sufficient to impart fluidity to the mixture, gum tragacanth or tragasol 0.67-4 parts, boric acid 1 and glycerine 1.5-7 parts. Stamford White. U. S. Patent No. 2,148,286.

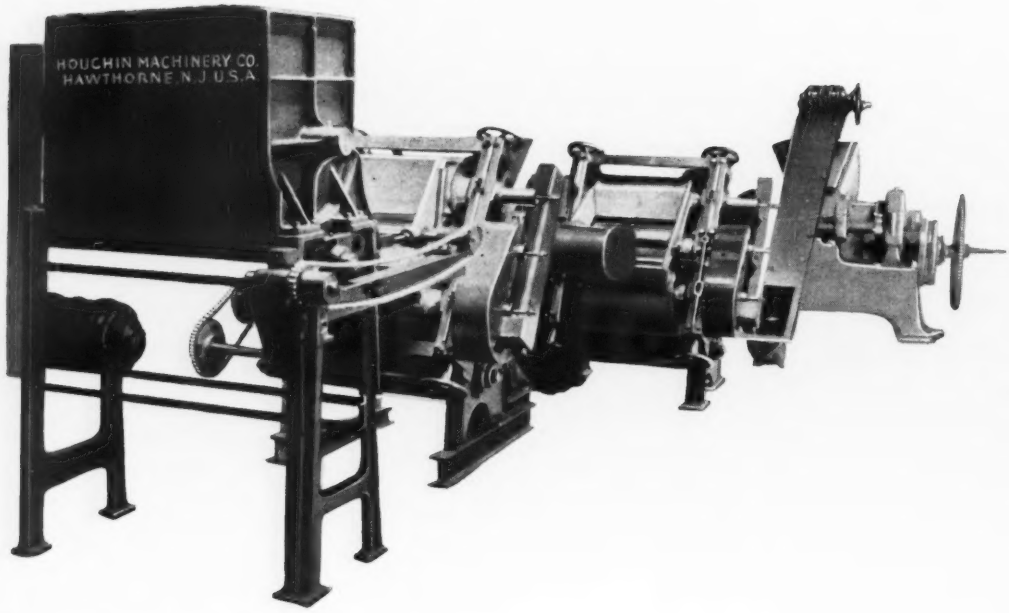
—— ♦ ——

Hydrogenation Catalyst

Cupper sulfate was added to a 30 per cent solution of nickel sulfate to the amount of 1 part of copper and 4 parts of nickel. The solution was treated with a 10 per cent solution of soda ash at 40° C. until pink to phenolphthalein. The precipitate formed was filtered out, washed 5 times with water at 50°, air-dried at the same temperature for 2 hours and pulverized.

Sunflower oil was hydrogenated in the presence of this catalyst at 195-205° C. for 20-30 minutes. The presence of iron in the catalyst in an amount over 10 per cent of the weight of nickel and copper caused noticeable decrease in the activity of the catalyst. Fine pulverization and simultaneous decomposition and reduction of the catalyst cake in the hydrogen current increased the activity of the catalyst. The velocity of settling of the catalyst depended on the degree of its dispersion. A. I. Laptev and A. M. Zolotareva. *J. Applied Chem.* (U.S.S.R.) 11, 1071-83; through Chem. Abs.

Complete Unit for Milling and Plodding
TOILET SOAP



Capacity 1,000 lbs. per hour (once through).
Unit consists of:

One (1) Ideal Amalgamator, with motor.
One (1) Three-Roll Chilled Iron Water Cooled Mill.
One (1) 10"-Preliminary Plodder fitted with Screen.
One (1) Three-Roll Chilled Iron Water Cooled Mill.
One (1) 10"-Preliminary Plodder fitted with Screen.
One (1) Conveying Screw with motor.
One (1) 10"-Finishing Plodder fitted with Electric Heater and Forming Plate.
One (1) Automatic Bar and Cake Cutter.

Unit operated by (2) 15-H.P.—(1) 10-H.P.—(1) 5-H.P.—(1) ½-H.P. Motors. Roller Chain Drives. Complete Weight 24,000-lbs. Floor Space 15-ft. x 21-ft.

We have recently installed a unit for making 5,000-lbs. of Toilet Soap per hour, taking two bars at a time from the Plodder and Automatic Bar and Cake Cutter.

These units are only recommended for long runs of Soap. We will be pleased to give further particulars upon request.

HOUCHIN MACHINERY CO., Inc.

HAWTHORNE, NEW JERSEY, U. S. A.

New Equipment

IF YOU want additional information on any of the items described below or if you want any of the bulletins, catalogs, etc., write to the MacNair-Dorland Co., Inc., 254 West 31st St., New York, mentioning the number of the item.

588—New Blower Attachment

Breuer Electric Manufacturing Co., Chicago, has developed an



attachment called the "Skraptrap" for use on the Tornado Portable Electric Blower when it is being used for vacuum cleaning. The "Skraptrap" is said to collect the small objects that are unavoidably drawn into the nozzle, thus preventing bolts, nuts, screws, nails, etc., from reaching and injuring the suction fan blades, while the dust, dirt and lint are readily by-passed into the dust bag.

589—Equipment Booklet

Mixing Equipment Co., Rochester, N. Y., has issued a catalog (B-66) containing specifications and engineering details on side entering mixers. The catalog also carries illustrations and methods of installation.

590—Permutit Bulletin

The Permutit Co., New York, has just issued a bulletin describing the "Permutit Spaulding Precipitator." The bulletin describes what is said to be the newest and most efficient design of equipment to treat water by the cold lime process. It contains 16 pages and is complete with specifications.

591—Diffuser Literature

Fumeral Co., Racine, Wis., has recently issued new literature on the "Fumeral Instant Diffuser." "Fumeral Stationary Diffusers," and on the "Portable Fumeral Diffusers." The literature contains features, uses and illustrations of the various models.

592—Insecticide Booklet

General Chemical Co., New York, has just published a booklet entitled, "A Working Knowledge of Insecticides and Fungicides." It describes insecticides and how they are employed. Numerous illustrations of the various pests and the damage they do also appear. Copies available.

593—Dreyer Price List

P. R. Dreyer Inc., essential oils, New York, has just issued a new price list; known as "Catalog A." Besides regular quotations, some prices are given for specialties.

594—Mixing Equipment

The Patterson Foundry and Machine Co., East Liverpool, Ohio, has recently published a 95-page catalog of its agitators and mixers. All models of both types of machinery are well illustrated. Specifications and engineering data are given in detail.

595—M. M. & R. Price List

Magnus, Mabee and Reynard, New York, have issued a new 48-page price list and catalog of their various essential oils, aromatic chemicals.

596—Packaging Booklet

The Hinde & Dauch Paper Co., Sandusky, Ohio, has just issued a 16-page book entitled "Christmas Packaging." Actual samples of holly and linen patterns and embossed surfaces are affixed to various pages of



the book. There are also half-tone reproductions of Christmas packages. Copies of the booklet are available.

Fat-solvent Soap

A particularly good soap for attack on fats is made by mixing 2 parts of paste soap, 4 parts of water, 1 of denatured alcohol, and 3 parts of a solution of 1 part of triethanolamine oleate in 2 parts of xylol. If other hydrocarbons are used they should be reasonably high-boiling. *Seifensieder-Ztg.* **66,** 271 (1939).

Palm-oil Recovery

In extracting palm oil and similar vegetable oils, the liquor or pulp containing the oil is passed through shock strainers or vibrating screens before admission to a centrifugal separator wherein the sludge deposited in the bowl is discharged periodically through peripheral openings. Aage Nyrop. British Patent No. 497,547.

Oil Refining

Vegetable oils, fats and waxes of the ester type are purified at one stage of treatment at a temperature below 100° C., with a liquid mixture of ethylene diamine and water in the proportion of 1 molecule of diamine to 2 molecules of water. Shell Development Co. Canadian Patent No. 381,908.

. . . a leading authority

on the manufacture of Drugs, Pharmaceuticals, Cosmetics, Toilet Preparations, Photographic Materials, Soaps, Fine Chemicals, Essential Oils, Perfumes, Dental Preparations, Patent Foods; Medicines in Liquid, Powder, Paste Pill and Tablet, Polishes, Antiseptics, Germicides, is

The MANUFACTURING CHEMIST

Cream and Liquid Face Powders
by G. H. ALLEN

Obsolescence in the Chemical Industry
by T. McLACHLAN

The Ageing of Perfumes
by J. AUGUSTIN

The Treatment of Foot-ache and Local Bromidrosis
by F. G. HOBART

Conditioned Air in the Drug Industry
by J. ENGELS

Skin Whitening Preparations: Their Composition and Manufacture
by H. STANLEY REDGROVE

Common Insecticides: Their Composition and Uses
by L. E. CAMPBELL

Avocado Oil
by R. BUSHBY

The Production of Odorous Substances by the Aid of Micro Organisms
by H. NICOL

Subscription

10/-

per annum
Post Free

Also publishers of
Food Manufacture
Paint Manufacture
Food Industries Weekly
Indian & Eastern Druggist
Food Industries Manual
The Rubber Industry
Chemical Industries and Technical Books

Published monthly by

LEONARD HILL LIMITED
17, Stratford Place, London, W. 1, ENGLAND

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

402 Bowen Building, Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 2,157,022, Superfatted Soap, Patented May 2, 1939 by Walther Schrauth, Berlin-Dahlem, Germany, assignor, by mesne assignments, to "Unichem" Chemikalien Handels A.-G., Zurich, Switzerland. A toilet soap having incorporated therein a superfatting agent consisting of an ether of glycerin and alcohol of the kind obtained from the natural fats and waxes and having at least 8 carbon atoms in the molecule.

No. 2,157,854, Mothproofing, Patented May 9, 1939 by David W. Jayne, Jr., Elizabeth, N. J., assignor to American Cyanamid Co., New York. A composition of matter useful for mothproofing comprising a solution of a guanidine salt in an organic solvent and a substance which has the effect of increasing the solubility of the salt in the solvent in which the substance is chosen from the group consisting of secondary butyl alcohol and an alkyl ether of ethylene glycol.

No. 2,158,241, Insecticide, Patented May 16, 1939 by Sisto E. Marsico, Aspinwall, Pa. In an insecticide, a rotenone solution consisting of commercially pure rotenone dissolved in chloroform liniment in about the proportions of 1 gram of rotenone to 40 cc. of chloroform liniment, the chloroform liniment being composed of about 30 per cent chloroform and about 70 per cent camphor soap liniment, and the camphor soap liniment being composed of hard soap, camphor oil, oil of Rosemary, alcohol and distilled water in the proportions of hard soap 60 gr., camphor oil 45 gr., oil of Rosemary 10 cc., alcohol 700 cc., and sufficient distilled water to make 1,000 cc. of the camphor soap liniment.

No. 2,158,663, Process for Manufacturing Soap, Patented May 16, 1939 by Carl Leyst-Kuchenmeister, Schlachtensee, near Berlin, Germany. A process of manufacturing soap which consists in saponifying a fatty material in liquid state with waste sulphite lye derived from cellulose industries together with freshly prepared caustic soda lye.

No. 2,159,025, Insecticide, Patented May 23, 1939 by William F. Hester, Drexel Hill, Pa., assignor to Rohm & Haas Co., Philadelphia. An insecticidal composition containing a phenyl benzyl ether having a substantially neutral substituent of relative weight equal to at least thirty.

No. 2,159,550, Insecticidal Repellant, Patented May 23, 1939 by James R. Cross, St. Petersburg, Fla., assignor of one-half to T. Frank Hobson, St. Petersburg, Fla. A coating for surfaces exposed to water embodying the juices of plant life the principal ingredient of which is catechutannic acid.

No. 2,159,953, Insecticide, Patented May 23, 1939 by Giuseppe Proetto, Philadelphia. An insecticide comprising wine dregs, capsicum, African bitter gourd juice, nicotine, and strong alkali soap.

No. 2,160,579, Insecticide, Patented May 30, 1939 by Friar M. Thompson, Jr., Wilmington, Del., assignor to Hercules Powder Co., Wilmington. An insecticidal composition comprising an ether of a terpene and an alcohol.

Revise TSP Specification

A *proposed* revision of Federal Specification O-T-671, for technical trisodium phosphate, has been prepared by the technical committee on detergents, appointed by the Federal Specifications Executive Committee. Several proposed changes from the present wording of the specification are as follows:

Instead of having one type of technical trisodium phosphate in finely granulated form, the revised specification would cover three types; granular, flake and crystalline. Where the product must now contain at least 95 per cent of crystalline trisodium phosphate ($Na_3PO_4.12H_2O$), the newer specification is more rigid in requiring at least 98 per cent of trisodium phosphate calculated as $Na_3PO_4.12H_2O$, from the total phosphoric anhydride (P_2O_5).

Total alkalinity to methyl orange indicator, calculated as Na_2O, in the present specification, must be no less than 15.5 per cent or more than 20 per cent. The new draft would narrow these limits, so that the total alkalinity, as above, would be no less than 16 per cent nor more than 19 per cent. The proposed specification would also make more rigid the phosphoric anhydride content. At present it must be at least 17.7 per cent. The change would require a percentage no less than 18.3.

Matter insoluble in distilled water remains in the tentative draft at a maximum of 0.1 per cent. However, no provision is made as to residue being retained upon a sieve, as is now the case, the present specification calling for the absence of residue on a No. 10 sieve and no less than 50 per cent of residue retained on a No. 100 sieve.

The committee states that comments or criticisms will be welcomed and will be given due consideration in connection with such revisions of the tentative draft as may prove necessary.

Preventing Laundry Stains

Washing compositions for laundry use are modified to contain three per cent of sodium thiosulfate or similar sulfur compound to prevent the formation of stains when zinc-lined vessels are used. Kohle- und Eisenforschung G.m.b.H. British Patent No. 492,589.

Glycerine Treatment

Glycerine water obtained on splitting fats and oils in the presence of sulfonic acids is extracted with a mixture of petroleum hydrocarbons and amyl alcohol before neutralization, as a step in purification. G. S. Petrov. Russian Patent No. 46,321.

A practical book on Soap Manufacture...

"MODERN SOAP MAKING"

By Dr. E. G. Thomssen and C. R. Kemp

Here is what the authors say about their own book in the foreword:

"Above all, this book is designed as a practical volume for the practical soapmaker. Its compilation is based on twenty years of actual experience in the soap plant by the authors. Little attention is given to the theories of saponification or detergency. The emphasis is all on the practical handling and refining of raw materials, kettle practice, and other operations in the modern soap factory."

A practical 540 page book on raw mterials, manufacture and testing of

TOILET SOAPS	LAUNDRY SOAPS	SHAVING SOAPS
MEDICATED SOAPS	SOAP POWDERS	SHAMPOOS
ANIMAL SOAPS	SCOURING POWDERS	LIQUID SOAPS
FLOATING SOAPS	SOAP CHIPS	SALT WATER SOAPS
TEXTILE SOAPS	DRY CLEANING SOAPS	FLOOR SCRUB SOAPS
NAPHTHA SOAPS	INSECTICIDE SOAPS	POWDERED SOAPS
GLYCERINE	FATTY ACIDS	SULFONATED OILS

AND OTHER DETERGENT AND ALLIED PRODUCTS

$7.50 postpaid in the U. S. A.
(Foreign postage 50c extra.)

MAC NAIR-DORLAND COMPANY

254 W. 31st Street *Publishers* **New York**

Liquid Soap

A liquid rather than a paste soap for cleaning very oily hands as in garages is made from 100 parts of palm-kernel oil, 50 parts of pine oil, 52 of caustic potash, 50° Be. and 50 parts of water. This soap is dissolved in 100 parts of water and 10 parts of ammonia of sp. gr. 0.91 added. Denatured alcohol may also be added if desired. *Seifensieder-Ztg.* **66,** 272 (1939).

—— ♦ ——

Unsaponified Fat in Soap

An indirect determination of the unsaponified fat in soaps is impossible in 0.5 *N* solutions. The behavior of 0.2, 0.1 and 0.01 *N* solutions of potassium soaps of stearic, palmitic and oleic acids, also of technical stearin, was examined. Alcoholic solutions of potassium hydroxide and aqueous solutions of hydrochloric acid were used. The potassium hydroxide solutions were employed without and with an addition of propyl, butyl or amyl alcohol, also with an addition of glycerine or glycol as factors inhibiting hydrolysis. The results of the determinations show that soap has no influence on phenolphthalein and that the differences in the determinations have to be considered only as a result of hydrolysis. In all cases a considerable effect of propyl alcohol and glycol was noticed due to a decrease in the electrolytic dissociation of potassium hydroxide. K. Ihnatowicz. *Przemysl Chem.* **22,** 380-7; through Chem. Abs.

—— ♦ ——

Amides from Fats

Fats are changed to acid amides and glycerine by treatment with liquid ammonia at 20-40° C. under a pressure of 8-15 atmospheres in the presence of ammonium salts of inorganic acids or metal amides, which serve as catalysts. A. I. Shatenshtein. Russian Patent No. 50,964.

—— ♦ ——

Soap Substitute

Products which may be used in place of or in addition to soaps are made by oxidizing with hypochlorite solution an acetophenone that is substituted in the nucleus by one or more aliphatic hydrocarbon radicals, of which at least one has 12 or more carbon atoms. Substituted benzene carboxylic acids and their salts are thus obtained. I. G. Farbenindustrie A.-G. British Patent No. 497,353.

—— ♦ ——

Oil Bleaching

Oil is treated with 0.3-1.5 per cent of hydrogen peroxide and 0.4-2 per cent of sodium nitrite, with which it is well mixed, in order to secure the desired bleaching effect. Industrial Patents Corp. Canadian Patent No. 381,890.

—— ♦ ——

Bottle Washing

A pamphlet on bottle washing has been published by the Alkali Group of Imperial Chemical Industries, Ltd. Emphasis is laid on the necessity for a detergent of high alkali content to neutralize the acid effect of certain residues, as in beer bottles, and to ensure the complete removal of paper labels without pulping them.

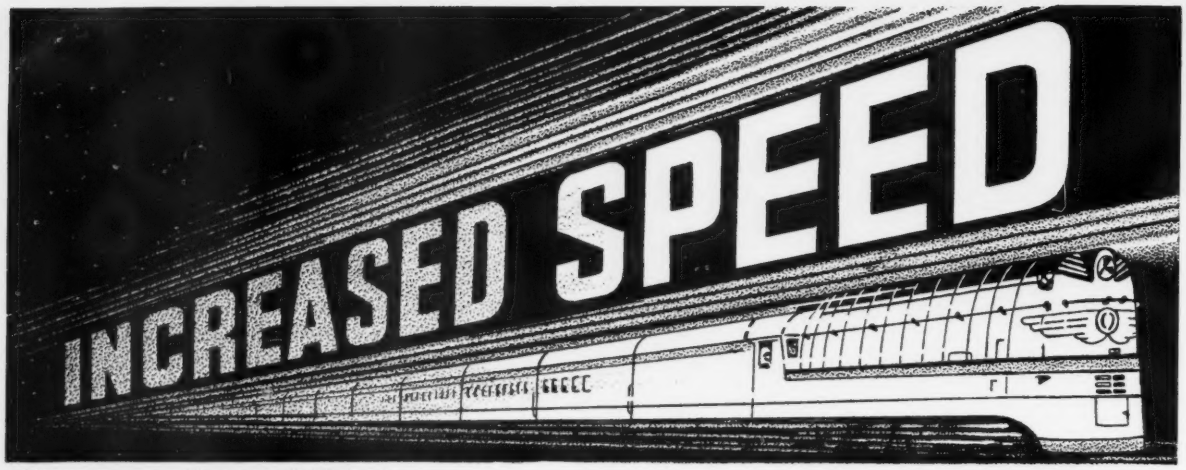
The importance of high alkalinity, more particularly of the caustic kind, is similarly stressed in the section dealing with the washing of milk bottles, which for many reasons are more difficult to clean and sterilize than any other type. Of all alkalies, caustic soda is not only the most generally efficient cleanser, but also the most powerful bactericide. By taking advantage of the special properties of such substances as sodium hexametaphosphate, it is now possible to incorporate very high proportions of caustic soda in bottle-washing detergents without any sacrifice of free rinsing and without risk of scale formation in the machine. *Chem. Trade J. & Chem. Engineer* **104,** 450 (1939).

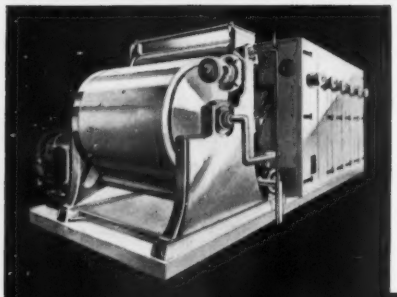
PLANT FLOORING

Plant floors where chemicals of any kind are used present their individual problems. An extensive study of the characteristics of floor surfaces has been summarized in the following table:

Floor Surface	Initial Cost	Ease and cost of repair	Safety against slipperiness	Ease of cleaning	Resistance to abrasion	Resistance to water	Resistance to oil and organic liquids	Resistance to alkalies	Resistance to acids	Resiliency (foot ease)	Resistance to heat
Wood planks	Moderate	Moderate but troublesome	Fair	Difficult	Fair	Poor	Poor	Poor	Poor	Good	Poor
Cement concrete.	Low	Very difficult	Good	Good	Poor	Fair	Poor	Poor	Poor	Poor	Poor
Cement with hardened surface	Moderate	Very difficult	Good	Good	Fair	Fair	Poor	Poor	Poor	Poor	Poor
Asphalt Mastic...	Moderate	Easy: cost moderate	Good	Fair	Good	Good	Poor	Good	Good	Good	Fair
Magnesite	High	Doubtful	Fair	Good	Variable	Good	Good	Doubtful	Fair	Good	Fair
Brick	Moderate	Moderate	Good	Fair	Fair	Fair	Good	Poor	Good	Poor	Good
Ceramic tile	High	Difficult; expensive	Poor	Good	Poor	Good	Good	Poor	Good	Poor	Good

The data are not necessarily the result of scientific tests but may be based on general observations. Renel C. Stratton and Warren A. Hough. *Ind. Eng. Chem.* **31,** 283-9 (1939).





In producing flakes for granulated soaps, toilet cakes or packaging, high speed output can often be an item of great saving. With the New Proctor Flake Soap System, from the hot liquid soap in the kettle or crutcher to the dried flakes requires only 6 to 14 minutes and capacities may be obtained from 750 to 6000 lbs. per hour, according to flake thickness, character of soap, etc. At this stepped-up production, quicker deliveries are assured and there are tremendous savings in floor space and equipment. Complete details are contained in a new 16-page illustrated catalog, that is yours for the asking.

PROCTOR & SCHWARTZ · INC · PHILADELPHIA

NEW PROCTOR *Flake Soap* SYSTEM

for low cost *in* para block *manufacture*





These two practical machines are all you need to produce high quality para blocks or cakes. The small machine will thoroughly mix all ingredients.

The large machine will compress the mixture into any shape dies can give.

In addition, the mixer can be used on other dry products such as roach powder, cleansers, bath salts, etc. It will also give a smooth, soft and velvety texture to creams. The hand lever press has more power than cheap foot presses. Send us some of your material and let us show you some specimen cakes.

HUBER MACHINE CO.

265 46th Street, Brooklyn, N. Y.

Makers of Good Soap Machinery for Forty Years

We announce development of new type soap colors

PYLAKLORS

They have good fastness to alkali. light. tin. ageing.

The following shades are already available:

Bright Green	Dark Brown
Olive Green	Palm Green
Yellow	Golden Brown
True Blue	Violet

It will pay you to send for testing samples.

PYLAM PRODUCTS CO., INC.

Manufacturing Chemists, Importers, Exporters

799 Greenwich St. New York City

Cable Address: "Pylamco"

Soap Kettle Fats

(*From Page* 22)

sions can be drawn. Obviously, there is not the degree of flexibility in fat selection for soap manufacture which domestic dairy, cotton oil and fish oil producers would have Congress believe. In spite of the high tax, long-range consumption of coconut oil has been more or less constant. Outside of palm kernel, which is in the same boat, and babassu oil, of unimportant supply, there is no substitute for coconut at the soap kettle,—and any restrictive tax on coconut is primarily punitive in nature.

Soap in Public Prints

(*From Page* 25)

everywhere advise women how to buy soap, and the women don't know what they are talking about and couldn't do anything about it if they did. The average housewife couldn't tell a bar of milled toilet soap from a piece of laundry soap if their shapes and colors were interchanged. And the same is proportionately true among soap experts if they did not have their laboratories to fall back on.

We cite again the case of the English soap manufacturer who contended for years among his coworkers that the public didn't know a good bar of soap from a horse-car, or words to that effect. He milled up from a laundry soap base a batch of soap, perfumed it with a high-priced odor, pressed it into small toilet soap shape, packed it in fancy boxes, and distributed it among his friends, asking only that they report to him how they liked the new "toilet" soap. The glowing praise was unanimous, and some asked for a further supply.

Although soap advertising has been pilloried time and again by its critics, especially by some of our government officials inspired with righteous indignation, — and in too many instances has deserved the chastisement,—it has on the whole been a far more accurate representative of soap in the public prints than has the great bulk of the drool contributed by editors, columnists, and other writers. Advertising has presented soap as a safe, indispensable commodity, which it is, and has abetted and encouraged its use, obviously to the public benefit. If it has exaggerated the benefits of soap, we feel that it has still clung far closer to the truth than those who write of "lye, acids, and other corrosive substances" as associated with soap.

Stearic Acid Determination

The determination of stearic acid in fats can be made with a 1 per cent error: To a 0.5 gram sample in a 200-cc. tared Erlenmeyer flask add 100 cc. of stearic acid solution (4.5 grams of stearic acid to 1 liter of 99 per cent alcohol at 20°C.) at 20°C.; place in a cooling thermostat, stir and maintain at 0°C. for 6 hours. Filter the precipitate and extract in a special apparatus. Arachidic and behenic acids are precipitated with stearic acid. A table of corrections is given. The breast, back and kidney fat respectively of beef contain 7.5, 11.0 and 27.0 per cent of stearic acid; for pork the figures are 12.0, 13.5 and 30.0 per cent respectively. A. Heiduschka and W. Böhme. *Z. Untersuch. Lebensm.* **77,** 33-8 (1939); through Chem. Abs.

Hydrogenation of soybean oil by the formate method, if the conditions of reaction are ideal, proceeds in a first-order reaction. Decrease in concentration of catalyst during the course of reaction is accompanied by decrease of velocity constant. In the hydrogenation of a large quantity of oil at one time or the same amount divided into several portions, if the latter is finished within the necessary time of reaction, the time required is shorter than the time of reaction of the large batch. E. Yamaguti and M. Yamada. *Bull. Waseda Applied Chem. Soc.* **15,** No. 4, 1-4. through Chem. Abs.

Dispersing Agent

Water-soluble capillary-active carboxylic acid amides containing sulfuric or phosphoric acid groups are prepared by treating aliphatic amines which have more than two nitrogen atoms and at least one reactive hydrogen atom bound to a nitrogen atom, with mono- or polybasic carboxylic acids. The sulfuric or phosphoric acid group is then introduced in the resulting carboxylic acid amides. Thus, diethylenetriamine is condensed with stearic acid and the resulting amide treated with oleum. I. G. Farbenind. A.-G. German Patent No. 663,808.

Lye Wetting Agents

Mixtures of alcohols with hydroxyalkylbenzyl alcohols or xylylene glycols are used to increase the wetting power of strong alkali lyes. The alcohols used are preferably of high molecular weight or glycol or glycerol ethers having free hydroxy groups, since the lyes to which they are added age less rapidly. An example is a mixture of hydroxymethylbenzyl alcohol and ethylene glycol monoethyl ether. British Patent No. 487,927.

Cleaning Up Fatty Oils

(*From Page* 31)

test as to the exact amount is when the sludge begins to show the presence of globules of free water mixed with it. It is advisable, Ayres states, to add starch or small amounts of acid, salts, alkali. During the agitation of the oil with the water, the temperature is raised to about 140° F. When the flocculent mass of hydrated impurities has formed, the liquid is passed through a continuous high speed centrifuge adapted to discharge separately the treated oil and the sludge. Centrifugal emulsifiers can be used for mixing also. A quite recent continuation of this idea is expounded in a British patent[16]. Water is mixed with crude oil at a temperature lower than 100° F. and this mixture separated into de-

gummed oil and hydrated gums by heating to a temperature between 100-160° F. and passing through a centrifuge. The entire process consumes about 5 to 15 minutes and is continuous.

It seems that passing mention should be given the statements in the Tischer patent[17] that phosphatides can be removed from soybean oil by treating with steam until an emulsion is formed, then centrifuging in a high speed centrifuge. Phosphatides are of course glycerides of fatty acids and a phosphoric acid. But soybean oil if expressed has other bodies of a colloidal nature present in small amounts.

Fleming patented[18] a process of mixing borax solution with the crude glyceride oil then subjecting the mixture to an atomizing operation in conjunction with carbon dioxide. The whole is drawn off to a settling tank where the clarified oil rises to the top.

Schellman[19] has proposed heating crude oils with 0.5-5 per cent anhydrous boric acid at temperatures ranging from 100-280° C. The mucilaginous substances present in the oil separate in a solid granular form and may then be removed by physical means. In another patent[20], he suggests heating crude cottonseed oil with solid polyhydric alcohol esters of boric acid, the precipitate formed being removed. Both of these methods give decolorization also.

Use of Acids and Salts

SIMMONS patented[21] many years ago a process of removing albumin and other protein bodies from whale oil employing pulverized alum, but since the time was 2-3 days it is impractical in our modern set-ups. Freiburg[22] also mentions alum has been used. Morrel-Wood in his text[3] gives as a method of removing carbohydrate mucilage churning with 10 per cent solution of common salt and aluminum sulfate. Sulfuric acid (1 to 10) can also be used. Schellmen's U. S. Patent No. 1,981,605 mentions that it has been proposed to treat oils with Glauber's salt, calcium chloride, borax, and the like to remove mucilaginous matters.

Genseck patented[23] a method of removing the impurities such as mucilaginous substances, lecithin and the like from oils by a mixture of dilute mineral acid and a solution of electrolytic salts. He admitted that the use of dilute organic and inorganic acids alone was old as was also the employment of solutions of calcium chloride, copper sulfate, magnesium chloride, and alum. The advantage of his method he asserts is that the removal of deposited or dissolved impurities proceeds more rapidly, besides being practically complete with losses at a minimum. In an example, an oil at 50° C. is stirred for 10 minutes with 7 per cent of a mixture of 4 parts HCl (6° Be strength) and 3 parts of a 30 per cent solution of $CaCl_2$. Flakes are formed which quickly subside.

In another of his patents[24], Gensecke first adds a saline or acid saline electrolyte to precipitate the mucines in flocculent form as in his previous patent. Then however without removing this material, alkali solution or other basic solution is added to neutralize the free fatty acids and added acids.

Brucke's idea[25] is similar to this supra. To 1,500 grams raw cottonseed oil at 25° C., 6 cc. of 50 per cent H_2SO_4 and 6 cc. concentrated Glauber's salt are stirred in. The impurities such as phosphatides, mucinous substances and the like in collodial solution separate out in the form of granular flakes. Then the mineral acid and the free fatty acid present are both neutralized.

Crude sulfur olive oil and other oils containing slime can be refined in a very simple manner by treating them with a concentrated acid according to a British patent[26]. In an example, crude sulfur-olive oil is freed from water by centrifuging. Then it is treated with 1-4 per cent conc. HCl of 1.19 sp. gr. while stirring to 80° C. When well distributed, stirring is slowed down. Fine flocks thereby combine and form flocks of ever increasing size. When this formation is ended either the mixture is centrifuged or showered three times with hot distilled water.

Fawcett[27] has a process which has as its distinctive feature the small quantity of the breaking solution employed in the breaking operation i. e. 1 part of reagent to 1000 parts of oil. If an acid is employed about 0.1 per cent by weight of H_2SO_4 of 98 per cent is used. The temperature employed in these treatments is 70-80° C. With alkali solutions about the same amount of a 50 per cent NaOH solution is used. Either centrifuging or settling is employed in separating the oil, which is now clear.

Bibliography

1. Brannt's Animal and Vegetable Fats & Oils (Ed. 1888) p. 190.
2. Pope U. S. No. 749,322 1-12-1904.
3. Morrell-Wood "Chem. of Drying Oils" Ed. 1925, p. 130 and 132.
4. Scollay U. S. No. 498,821, 6-6-1893.
5. Leutkemeyer et al U. S. No. 647,004, 4-10-1900.
6. British Patent No. 275,536, 8-25-1927.
7. Lewkowitsch "Tech. Oils, Fats, Waxes" 1914 Ed. Vol. 11, p. 31 and p. 395.
8. Lattig U. S. No. 547,122, 10-1-1890.
9. Henderson U. S. No. 619,020, 2-7-1899.
10. Barton U. S. No. 1,310,977, 7-22-1919.
11. Turner U. S. No. 1,448,581, 3-13-1923.
12. Baylis U. S. No. 1,725,895, 8-27-1929.
13. Kelley U. S. No. 1,747,675, 2-18-1930.
14. Kraybill U. S. No. 2,069,187, 1-26-1937.
15. Ayres U. S. No. 1,737,402, 11-26-1929.
16. British Patent No. 481,580, 6-11-1936.
17. Tischer U. S. No. 2,117,776, 5-17-1939.
18. Fleming U. S. No. 749,925, 1-19-1904.
19. Schellman U. S. No. 1,927,850, 9-26-1933.
20. Schellman U. S. No. 1,981,605, 11-20-1934.
21. Simmons U. S. No. 4,439, 4-4-1846.
22. Freiburg U. S. No. 1,964,875, 7-3-1934.
23. Gensecke U. S. No. 1,928,531, 9-26-1933.
24. Gensecke U. S. No. 1,968,252, 7-31-1934.
25. Brucke U. S. No. 2,035,589, 3-31-1936.
26. British Patent No. 326,539, 3-14-1930.
27. Fawcett U. S. No. 2,047,196, 7-14-1936.

Sanitary Products SECTION

A Section of "SOAP" dealing with

Insecticides • Disinfectants • Moth Products
Floor Products • Polishes • Chemical Specialties

POWCO BRAND
REG. U.S. PAT. OFF.

....what's the catch?

To one of our old customers we recently explained the advantages and great savings (about 50% at today's market prices) obtainable by using PYRIN instead of even our own Basic Pyrethrum Extract.

"Yes," he said, "It sounds fine . . . *but what's the catch?*"

A very normal, natural question. To save so much —and even improve his product!—seemed just too good to be true.

But he proved it to himself, just as you can if you are still one of the few still buying straight pyrethrum extract.

USE PYRIN—and save. *There's no catch to it!*

Killing Power—that's the thing!

JOHN POWELL & CO., Inc.

Specialists in Pyrethrum & Rotenone

114 East 32nd Street
New York City

Prentiss Policy

IN offering our products and our technical advice and service to the manufacturers of agricultural and household insecticides an occasional re-statement of our cardinal policy becomes advisable.

Our function is that of supplying the botanical insecticide materials to manufacturers for conversion into finished insecticides and our technical information is completely at the disposal of our customers.

We, ourselves, do not manufacture or sell finished insecticides and do not compete with our customers directly or indirectly.

CLARIFIED PYRETHRUM CONCENTRATE

PYRETHRUM POWDER

POWDERED CUBE AND DERRIS

#

R. J. Prentiss & Co., Inc.

100 Gold Street New York City

Licensed Cube Distributor under Dennis Patent 18,667

...for *Para Blocks* and crystals—

DICHLOROMES NORDA

for Paradichlorbenzene

Series A $1.00	*Series B* $1.50	*Series C* $2.00
Bouquet A	Bouquet B	Bouquet C
Lilac A	Lilac B	Lilac C
Rose A	Rose B	Rose C
Violet A	Violet B	Violet C
Sweet Pea A	Sweet Pea B	Sweet Pea C
Gardenia A	Gardenia B	Gardenia C

★

SECTOROMES NORDA

for fly sprays

Priced at 50c and $1.00 per pound

Ask NORDA for further details.

Norda

ESSENTIAL OIL and CHEMICAL COMPANY

Chicago Office
325 W. Huron St.

Los Angeles Office
2800 E. 11th Street

St. Paul Office
Pine and E. 3rd St.

Canadian Office
119 Adelaide St., W., Toronto

New York Office
601 West 26th St.

Southern Office
Candler Annex Bldg., Atlanta, Ga.

Is yo r p oduct lik t is headl ne?

IN THE HEADLINE, letters are obviously missing. In your insecticide, there may be blank spots that are not so easy to detect. For example:

Has it proved itself against roaches, bedbugs, ants, silverfish, moths . . . as well as flies?

Unfortunately, no test... except time... will tell you. True, the Peet-Grady test gives you some sort of an answer in regard to flies, but offers no assurance that your insecticide will be a match for other offensive pests. Certain synthetics may win a high rating in the Peet-Grady test, yet be found almost inert against roaches.

Has your insecticide proved itself as a repellent?

Pyrethrum has a long, well-established history as a repellent, while the repellent activity of many substitutes is still in doubt.

Are you certain of your insecticide's uniformity?

There are certain synthetics, which when added to pyrethrum concentrates, cause a deceptive analysis... the Seil test showing a higher percentage of pyrethrins than is actually present.

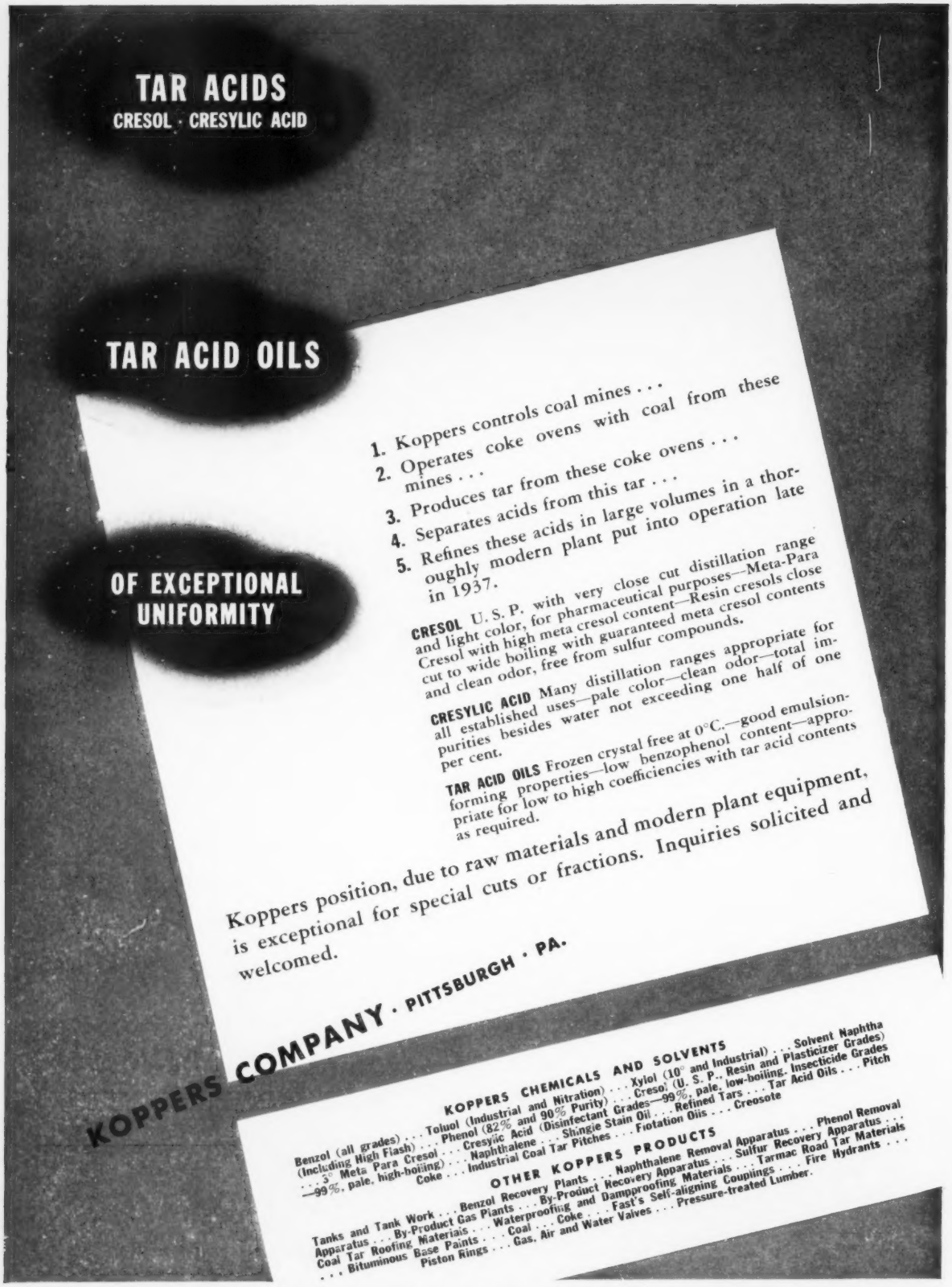
Why not avoid these doubts and uncertainties? Choose Pyrocide 20, the base with standardized, guaranteed pyrethrin content, the base with a *ten-year record* of effectiveness against not only flies and mosquitoes, but other resistant pests.

Pyrocide 20 contains no synthetics. It is specially treated to remove "false" pyrethrins. Thus the Seil test will show the actual amount of pyrethrins (killing power) present.

Pyrocide 20 is guaranteed to contain 2.5% pyrethrins by weight ...2 grams per 100 c.c. Uniformity is assured by three analyses during manufacture, the last taking place just before shipment. McLaughlin Gormley King Company, Minneapolis, Minnesota.

PYROCIDE 20

The Purest Form of Pyrethrins Commercially Available



PRODUCTS OF THE WHITE TAR COMPANY OF NEW JERSEY, INC., a Koppers Subsidiary

REFINED NAPHTHALENE—Crushed, Crystals, Powder, Lump, Chips, Flakes. For use in manufacture of deodorizing blocks, moth preventives and other insecticides. Also Naphthalene in Balls, Blocks, Tablets · COAL TAR DISINFECTANTS—Co-efficients 2 to 20 plus, F. D. A. Method · CRESOL AND CRESYLIC DISINFECTANTS · PINE OIL DISINFECTANTS · PINE OIL DEODORANTS · CRYSTAL AND BLOCK DEODORANTS · LIQUID INSECTICIDES · DEODORIZING BLOCKS—Pressed Naphthalene or Paradichlorobenzene. Various sizes and shapes. Perfumed and plain. Bulk industrial packages, retail packages. Write to Kearny, N. J.

PARATINTS

GIVE YOU A CHOICE OF

MANY COLORS—MANY SCENTS

WHEN you use Givaudan PARATINTS you have a wide and interesting variety of scents and colors to choose from. The PARATINT line is the complete, modern line for scenting para blocks and moth balls in one operation. Each of the combinations listed below is developed to effectively offset the odor of paradichlorobenzene and at the same time impart a pleasing fragrance and a uniform, brilliant color. They are efficient, convenient to use and the price is low. Check over the types offered at the right and write us for samples of the ones you prefer. Paratints are also available without color.

LILAC (Purple)	WISTERIA (Purple)
NARCISSE (Yellow)	PINE (Green)
LAVENDER (Lavender)	ROSE (Rose)
SWEET PEA (Green)	CARNATION (Red)
JASMIN (Yellow)	VIOLET (Violet)
ORIENTAL (Orange)	GARDENIA (Tangerine)
ORANGE BLOSSOM (Orange)	NEW MOWN HAY (Yellow)

GIVAUDAN-DELAWANNA, INC.
80 FIFTH AVENUE, NEW YORK, N. Y.

BRANCHES: Philadelphia Los Angeles Cincinnati Detroit Dallas
Baltimore Chicago San Francisco Seattle Montreal Havana

NEUTRACENE

An effective deodorizer for fly spray. Use 1/16 ounce to one gallon of spray to neutralize bad odor . . . then add ⅛ to ¼ ounce of any one of the following top bouquet odors . . .

ODOCENE

Reliable specialty of proven merit. Pleasant type odor of enduring character.

PETROMA

Floral type, having a pleasing Wisteria background.

FLOCENE

Floral type of attractive character but giving no definite flower impression.

VITACENE

Possesses a clean, refreshing scent. New modern odor. Remarkable coverage without leaving a definite perfume.

VANASPRA

Produces the definite Vanilla types of odor. Suitable for use in bakeries, confectioners, restaurants, etc.

FRUITSPRA

This odor gives results in harmony with the odors around fruit and vegetable stores where perfume would not be desirable.

Theatre Spray Odors

APCO WATER SOLUBLE OILS SERIES "S"

Our laboratories have worked incessantly during the past two years to produce a new line of improved water soluble oils which will remain clear in a water solution. An attractive Theatre Spray may be obtained by using from 2 to 4 ounces of this water soluble oil to one gallon of warm water. If you cannot find the odor you desire in the following list, write us and our Laboratories will develop the particular type for you.

Bouquet	Jasmin	Rose	Orange
Chypre	Lemon	Mint	Oriental
Fougere	Trefle	Pine	Orange
Violet	Narcisse	Lilac	Blossom
Gardenia		Wisteria	

Parafume Series

No. 200

Our Parafumes were produced especially for use in Deodorizing Paradichlorbenzene Blocks, Bath Salts and Naphthalene Crystal Preparations. These oils are powerful and will penetrate the product uniformly and the odor will last until the Block or Crystals have completely evaporated. From the following list you will note that our Parafumes contain both perfume and color, but if you prefer the odor without color, we are in a position to supply them without color. We suggest using fom 8 to 16 ounces per 100 pounds of Crystals.

CEDAR-PINE (*amber color*)	VIOLET (*violet color*)	LILAC (*lilac color*)	PINE (*green color*)
ORIENTAL (*amber color*)	JASMIN (*amber color*)	NARCISSE (*amber color*)	ROSE (*rose color*)
LAVENDER (*lavender color*)	ORANGE BLOSSOM (*orange color*)	CARNATION (*cerise color*)	

Aromatic Products, Inc.

15 East 30th Street, New York City — Factory: Springdale, Conn.

ATLANTA	DALLAS. TEXAS	PITTSBURGH	CHICAGO
223 Spring St., S.W.	715 Praetorian Bldg.	727 Grant Building	205 West Wacker Drive

PYRETHRUM Is Still King

Not Alone Against Houseflies . . .

but Roaches, Bed Bugs, Ants, Fabric Moths, Silverfish

HOUSEFLIES are relatively easy to kill but how about tougher insects—fabric moths, ants, roaches, bed bugs and silverfish? A general insecticide must control a broad variety of insects. Positively known and proven (through over 200 years of use, and thorough scientific tests) is the ability of pyrethrum to conquer them all.

and PYREFUME Still Reigns as "The Perfected Pyrethrum Concentrate"

Laboratory men, expert chemists, pharmacognosists, bio-assayists and entomologists scientifically see to it that every batch of Pyrefume is physiologically tested for high "knock-down and kill" potency . . . rigidly assayed after extraction for pyrethrins content . . . uniquely stable due to a special Penick process . . . singularly free from odor so that less perfume is required . . . unusually stainless. Pyrefume costs less due to Penick economies.

PYREFUME IS STANDARDIZED

●

GUARANTEED IN PYRETHRINS CONTENT

S. B. PENICK & COMPANY

132 Nassau St., New York, N. Y. **1228 W. Kinzie St., Chicago, Ill.**

THE WORLD'S LARGEST BOTANICAL DRUG HOUSE

....why gamble?



...when DEO-BASE gives you

Reg. U. S. Pat. Off.

1. Complete freedom from kerosene odor
2. Stability
3. Balanced fractionation
4. Correct evaporation rate
5. A flash point which meets all safety requirements
6. Controlled uniformity

Use DEO-BASE *as your carrier, so that your finished insecticide can be sold everywhere, for use anywhere.*

L. SONNEBORN SONS, INC., NEW YORK

CHICAGO • BALTIMORE

Refiners of White Mineral Oil & Petrolatum

Refineries: Petrolia & Franklin, Pa.

Southwestern Distributors: Sonneborn Bros., Dallas, Texas

Canadian Representative: Charles Albert Smith, Ltd., Toronto.

STOCKS CARRIED IN PRINCIPAL CITIES

LOS ANGELES • PHILADELPHIA

DOLLAR FOR DOLLAR

To get the best value for the money in insecticide perfuming, the perfume should be custom built to your particular spray. In this manner the volatility of the aromatic constituents can be matched to the volatility of the spray base constituents so that the objectionable odor is completely covered and the perfume is gone as soon as its job is done.

Send us a gallon of your insecticide, unperfumed, and let us show you more dollar for dollar value with a "custom built" perfume.

VAN AMERINGEN-HAEBLER, INC.

315 FOURTH AVENUE
NEW YORK CITY

1939 OFFICIAL TEST INSECTICIDE

THE 1939 Official Test Insecticide specified for evaluating liquid household fly sprays by the Peet-Grady Method according to the official procedure of the National Association of Insecticide & Disinfectant Manufacturers, is stocked for prompt shipment in cartons of one dozen six-ounce bottles and in single six-ounce bottles.

Send orders or requests for information direct to the Executive Office of the National Association of Insecticide & Disinfectant Manufacturers, 110 East 42nd St., New York. The official test insecticide is available to all firms or laboratories whether members of this Association or not.

▼

National Association of
Insecticide & Disinfectant Manufacturers, Inc.
110 East 42nd Street New York

OFFICERS

President . . . J. L. BRENN, Huntington Laboratories, Inc., Huntington, Ind.
First Vice-President . . . . . W. J. ZICK, Stanco, Inc., New York
Second Vice-President . . . . . JOHN CURLETT, McCormick & Co., Baltimore
Treasurer . . . . . JOHN POWELL, John Powell & Co., New York
Secretary . . . . . IRA P. MACNAIR, MacNair-Dorland Co., N. Y.

BOARD OF GOVERNORS

GORDON M. BAIRD
Baird & McGuire, Inc., Holbrook, Mass.
N. J. GOTHARD . . Sinclair Refining Co., E. Chicago, Ind.
H. W. HAMILTON . . . . . White Tar Co., Kearny, N. J.
H. A. NELSON . . . . . Chemical Supply Co., Cleveland
S. S. SELIG . . . . . The Selig Co., Atlanta
WALLACE THOMAS . . . . Gulf Refining Co., Pittsburgh
DR. E. G. THOMSSEN J. R. Watkins Co., Winona, Minn.
CLARENCE WEIRICH C. B. Dolge Co., Westport, Conn.
R. H. YOUNG . . . . Davies-Young Soap Co., Dayton, O.



Lethane 384 Special

Synthetic Insecticide Concentrate

QUICK KILL

After all, there's one main reason why your customers buy your insecticide —Quick Kill. Every test shows that Lethane 384 Special gives maximum kill over a wide range of pests. Its other advantages—clarity, uniformity, stability, safety and economy—are additional advantages that add to Lethane's prestige.

RÖHM & HAAS COMPANY, INCORPORATED

222 West Washington Square • PHILADELPHIA, PA.

CHICAGO • KANSAS CITY, MO. • *Canadian Agent*—P. N. SODEN & CO., LTD., MONTREAL, P. Q., CANADA

U. S. Specifications for Soaps and Sanitary Chemicals? *See the new 1939* BLUE BOOK



When you have an opportunity to bid on soap and sanitary chemical requirements for any branch of the Federal government or when bids from other quarters specify "according to U. S. Specifications" then your BLUE BOOK serves another useful purpose. In the reference section are complete specifications for chip soap, cake grit soap, hand grit soap, liquid laundry soap, ordinary laundry soap, powdered laundry soap, soap powder, salt-water soap, auto soap, potash linseed soap, white floating toilet soap, liquid toilet soap, milled toilet soap, powdered toilet soap, laundry soda, mechanics hand detergent, sweeping compound, paste metal polish, silver polish, stove polish, scouring powders, insect powder, and floor waxes. N.A.I.D.M. specifications for insecticides and disinfectants are there too. Why be without this valuable and constantly useful reference material? It is in the BLUE BOOK, along with other worth while information, in handy form.

A limited number of *free* copies of the new 1939 BLUE BOOK are still available to new subscribers.

The New BLUE BOOK includes

Buyers Guide — Listing everything readers of SOAP buy,— raw materials, machinery, packaging materials, bulk soaps, sanitary products, accessories, etc., with a comprehensive list of leading suppliers of each item.

Toilet Soap Manufacture —A discussion of manufacturing problems.

Soap Perfuming — A review of the principal types of perfuming materials, with comments on difficulties encountered with each in perfuming soaps.

Glass Cleaners — Composition and use of windshield, window and glass cleaners.

Moth Specialties —A discussion of moth products of the powdered, cake and liquid types.

Hand Soaps — Methods and formulas for the manufacture of hand cleaners.

Wax Polishes —Results of a laboratory investigation of wax polishes, indicating how choice of ingredients affects gloss, hardness of film, water resistance, color, odor, etc.

Specifications —A resume of U. S. specifications for soaps, polishes, waxes, cleaners, chemicals, etc. Specifications of Natl. Assn. Insecticide & Disinfectant Mfrs. for insecticides and disinfectants.

Index to SOAP — Composite index to the monthly issues of SOAP, 1934 through 1938.

Directory of Association Officers, Charts and Tables.

MacNair Dorland Co.
254 West 31st St.
New York, N. Y.

Send me a copy of the new BLUE BOOK at once. Enclosed check for $3.00 ($4.00 foreign) covers a year's subscription to SOAP and SANITARY CHEMICALS with which I get the BLUE BOOK free.

Name .....

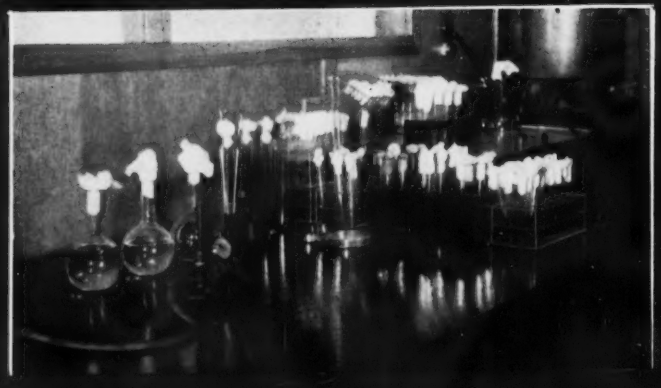
Position .....

Company .....

Address .....

Business .....


IT COSTS YOU LESS PER GALLON . . . WHEN YOU USE
Felton Perfumes
FOR
INSECTICIDE SPRAYS
It's a fact that correct neutralizing and perfuming are paramount factors in marketing successful Insecticide Sprays.
Through years of research, Felton Chemical Co. have developed an outstanding line of perfumes (KEREX SERIES) for use both in sprays made with pyrethrum base or with the newer synthetic bases or combinations. These perfumes (KEREX SERIES) insure correctly neutralized and pleasantly perfumed sprays at unusually economical costs.
WRITE FOR SAMPLES
Boston, Mass. 80 Boylston St.
Sandusky, Ohio 1408 W. Market St.
New Orleans, La. Balter Bldg.
Chicago, Ill. 1200 N. Ashland Ave.
Salt Lake City, Utah 2225 S. 5th St., East
Philadelphia, Pa. 200 So. 12th St.
Los Angeles, Calif. 4727 W. Washington Blvd.
San Francisco, Calif. 707 Kohl Bldg.
St. Louis, Mo. 4910 W. Pine Blvd.
Denver, Colo. 1720 Arapahoe St.
Montreal, P.Q., Can. 353 St. Paul St., W.
Toronto, Ont., Can. 137 Wellington St., W.
FELTON
Quality
FELTON
CHEMICAL CO., INC.
603 Johnson Ave., Brooklyn, N. Y.
Manufacturers of AROMATIC CHEMICALS, NATURAL DERIVATIVES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS.
STOCKS IN PRINCIPAL CITIES.

PINE OIL
SINFECTANTS
-TROL
HIPINE
CRESYLIC
ACIDS
WOOD
PRESERV
OIL
SPRAYS
HOSPITAL
DISINFECTANTS
CONCENTRATES
CRESOL COMPOUNDS
SOAP
ORPINE
MOTH
SPRAYS
PES-TO
CRESTAL
FLUID
B. A. I.
CATTLE
SPRAYS
WEED KILLE
TAR ACIDS
ALL

TESTED
REOSOTE
VENTS
INSECTICID
TIC-TOX
G-TOX
ANIMAL
DIPS
STOCK DIPS
COAL TAR
DISINFECTAN
BAC-TROL
CLEARPINE
DORANTS
BAIRD & McGUIRE, INC.
ST. LOUIS, MO. HOLBROOK, MASS.

Sanitary Products

A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

THE recent meeting of the National Association of Insecticide & Disinfectant Manufacturers in New York boasted the largest attendance in the quarter-century history of the Association. What with new laws, regulations, and proposed legislation, and rapid-fire changes taking place within the industry itself, is it any wonder that the number of manufacturers seeking guidance should increase? Umbrellas are always in greater demand when it looks like rain.

LIQUID soap can be supplied to public schools at a cost of less than five cents per pupil per year. But even at this low cost, the consumption of liquid soap for the purpose is far below what it should be. The figures for two widely separated cities whose schools are fully equipped throughout with liquid soap and paper towels, show that each pupil uses about 375 towels per year. The consumption of liquid soap, however, is only at the rate of one gallon for every fourteen pupils per year of regular standard fifteen per cent soap.

Obviously, the soap usage compared to towel consumption is only a fraction of what it should be. Broken or unfilled dispensers? Unsatisfactory soap? Lack of education? Or has it to do with selling the soap? These questions might be cause for some interesting speculations.

AT BEST, it is generally recognized that the maintenance of cleanliness in the toilet rooms of public schools is one of the most difficult sanitation jobs. In a recent manual on the general subject of school building care, C. A. Howard, superintendent of public instruction at Salem, Oregon, has brought out some very interesting points on toilet room care. Particularly, is his statement that "a disinfectant that is a real germicide, such as formaldehyde, phenol or some other coal tar product, may be added to the water that is used for cleaning" of more than usual interest. He goes on to state that only disinfectants with proved germicidal qualities should be employed.

Based on long experience, the foregoing represents good practice in practical care of public toilet rooms in schools or elsewhere. But, then Mr. Howard goes on to state that "the purpose of deodorants is to cover up rather than remedy a bad condition resulting from an unclean toilet room. Deodorants should, therefore, be taboo." This is not true. Deodorants are not designed or sold for that purpose. Large numbers of the largest hotels and institutions with immaculately clean toilet rooms use them not as a substitute for cleanliness, but as an adjunct to it. Practical maintenance experience over a long period of years has taught these users their value. Or why does Mr. Howard believe they spend money for them year in and year out?

Insecticide-Disinfectant Makers

Discuss new Federal Food, Drug and Cosmetic Law . . . Report on test methods for disinfectants, waxes, crawling insects . . . Marketing Committee withholds "seal of approval" . . . Baird enumerates faulty and unfair state specifications . . . Discuss development of markets and market research . . . December meeting to be held in Washington, D. C.

SOME two hundred and forty members attended the 26th annual mid-year meet- of the National Association of Insecticide and Disinfectant Manufacturers on June 5 and 6 at the Hotel Biltmore, New York. Coming from all parts of the country, they heard talks and discussion on test methods, labeling the new Federal Food, Drug and Cosmetic Law, scientific reports, state legislation and a wide number of other subjects. J. L. Brenn, president of Huntington Laboratories, Huntington, Ind., and president of the association, presided at the morning sessions with W. J. Zick of Stanco, Inc., New York, first vice-president, occupying the chair in the afternoon sessions.

In his annual address, Mr. Brenn made a plea that the membership of the association work together in an effort to increase sales of their products. He stated that increased quantities of insecticides, disinfectants and sanitary supplies can be sold if the association would make the public at large more conscious of the need for these products by the media of cooperative publicity. He also declared that a trade association working for its particular industry as a whole can do a job vastly more influential and for much less money than individual members alone can do.

One of the most interesting features of the first day's meeting was the "Question and Answer Clinic on Labeling," which was conducted by Dr. H. C. Fuller, technical consultant, Washington, D. C. Prior to the discussion, Dr. Fuller made a few remarks on the work he had done for the Legislative Committee and the status of insecticides and disinfectants under the Federal Food, Drug and Cosmetic Act of June 25, 1938. Some of the more interesting questions asked by the audience and answered by Dr. Fuller are as follows:

Q—Do repellent materials which require direct application to the skin, come under the new Food, Drug and Cosmetic Law?

A—No!

Q—Do coal-tar disinfectants come under the new law?

A—As long as the statement "for cuts or wounds, etc." or a similar implication is **not** on the label, it is not subject to the law.

Q—When coal-tar disinfectants do come under the Food, Drug and Cosmetic law, how is it necessary to list the ingredients?

A—The ingredients must be listed qualitatively. If the disinfectant is U.S.P., it is not necessary to list the ingredients.

Q—Does vanishing cream with insect repellent dissolved in it, to be spread on the skin, come under the new law?

A—Consensus of opinion was that the new Act would not cover it, but the Insecticide Act would.

Q—Do stock sprays come under the new law?

A—Not at present, unless remedial value is claimed for some such condition as mange or hog lice.

Q—What legislation applies to products for fleas?

A—The Insecticide Act covers this type product. The same product, however, may come under the Food, Drug and Cosmetic Act, if it contains such a phrase on the label as "to be used for ticks."

Q—Claims are being made for some livestock sprays as a use for sleeping sickness; would these claims on the label make it subject to the new law?

A—Maybe!

Q—What is the definition of a "label"?

A—A label must be attached to the package, or may be literature accompanying the package, such as inserts, etc. Literature that goes separately through the mail, is not considered as being a label.

Q—What legislation would cover literature going through the mail?

A—The Wheeler-Lea Bill would probably cover such literature.

Q—How should a product containing "Lethane" or pyrethrum be described?

A—If it does not come under the Act, nothing need be said.

Q—Must **full** directions be included on the labels?

A—Yes, they are expected on the container as well as in the circular.

Q—On a creosote dip or disinfectant label, why is it necessary to differentiate between coal-tar phenols (tar acids) and neutral coal tar oils, and to list them separately?

A—Because the legislation provides for the listing of each active ingredient. If a general term were used instead of the above two separate items, it would not fulfill the requirement of the phenol listing.

Several pertinent facts brought out in the discussion were that many labels have only one claim which brings it under the new law. By omitting the one claim, the product may escape the new legislation . . . If there is anything on the label pertaining to control of disease, etc., the product is subject to the new law . . . When a product is submitted to the Food, Drug and Cosmetic Board for approval, it should be accompanied by as much information as possible concerning its physiological effect. The board will render a decision as to the product's status.

An unscheduled, but interesting comment on the Food, Drug and Cosmetic Law was made by Dr. E. L.

Consider Labeling at N. Y. Session

Newcomb, secretary of the National Wholesale Druggists Association. After complimenting the N.A.I.D.M. on its activities, Dr. Newcomb placed emphasis on three points when regarding the new law from the manufacturers' standpoint. First among these was the necessity for the producer to be absolutely honest with the label. Next to be emphasized was the fact that the law is a living thing Things that are acceptable today, may not be acceptable tomorrow. If labeling from the therapeutic point of view, the manufacturer must watch out for any change resulting from new research. And last, it is essential for the insecticide manufacturer to engage in scientific research — for this will determine future legislation.

IN A paper entitled "Test Methods Against Crawling Insects" Dr. F. L. Campbell of Ohio State University, who was in charge of the N.A.I.D.M. Fellowship at that institution, reported on the completion of work done there under the fellowship. Dr. Campbell said, that if we are to have only one test for crawling insects, it would be better to adopt the cockroach as the test organism, rather than the bedbug, as the cockroach is more resistant and readily available. The young German cockroach was found to give the most satisfactory results as it avoids sex differentials which would appear in the older cockroach. The method recommended in this test is the "settling mist" method, with a check against the Official Test Insecticide. Dr. Campbell, further stated, that laboratory tests tell nothing about the insecticides worth under practical conditions; these must be determined independently. The report was supplemented by numerous slides showing the test methods.

The Insecticide Scientific Committee announced at the meeting that since the Association has discontinued the Fellowship at Ohio State University, it is planned to obtain from members of the Association individual contributions which would entitle the contributing member to have a number of insecticides tested by Dr. Campbell and his associates. The funds for this plan would be handled by the Association but the results of the tests made for a contributing member would be reported directly to him and samples for test would be submitted under "blind" numbers.

A report on the problems and progress of the Insecticide Marketing Committee was given by its chairman, Harold A. Thomas of Shell Oil Co., St. Louis. During the year, this Committee was augmented by a special "seal of approval" committee for the purpose of handling the problems arising as a result of the adoption of a U. S. Commercial Standard effected by the Association in June, 1938. There are still a number of testing laboratories and governmental purchasing groups who seem prone to ignore the accepted methods of testing and the evaluation of grades of insecticides as outlined in the standard. In view of this, the "seal of approval" committee and the Insecticide Marketing Committee feel that much is to be done by the association before the seal of approval can be released. It is thought that it would be unwise to prepare and release seals of approval to the membership and later find that outside groups feel that they have cause to take issue with the quality and qualifications for which the seal stands. The Committee also reported that a large potential market for livestock sprays exists and that this type of insecticide has been sadly overlooked. The members of both the Marketing and Testing Committees will work toward procurement of an early U. S. Standard, for livestock sprays, through grade evaluation, etc.

DR. McGOVRAN of the Bureau of Entomology & Plant Quarantine, U. S. Department of Agriculture, presented a paper on "The Effects of Knockdown on the Resistance of Houseflies to Pyrethrum Sprays." The paper was based on experimental work conducted by Dr. McGovran, W. N. Sullivan and G. L. Phillips, the latter two also from the Bureau. It was disclosed that houseflies that had been knockdown-paralyzed with ether, acetone, or kerosene sprays low in pyrethrum content were more resistant to kerosene sprays high in pyrethrum content than were normal active flies.

Another interesting paper on scientific research, read by W. N. Sullivan, was entitled "The Toxicity to the Housefly of Optically Active and Inactive Compounds of the Rotenone Series, including some Dihydro - Derivatives." The paper, which appears elsewhere in this issue, was prepared by Mr. Sullivan, L. D. Goodhue and H. L. Haller, all of the Bureau of Entomology.

At the opening of the session on Tuesday morning, Dr. E. G. Klarmann of Lehn & Fink Products Corp., Bloomfield, N. J., gave a report on "Collaborative Tests on Disinfectants." He presented a method which he suggested be adopted as the official method at the winter session of the association. This brought forth much comment, but nothing of any definite nature was decided upon. President Brenn suggested that discussion and comments on the method take place before adoption, if such is to be the case, and not after its acceptance. Too often, there is little if any comment until after a method is adopted. The report will be published in SOAP where it can be studied at



Caught Off Guard at the I.

1. Jack Varley and Gordon Baird of Baird & McGuire.

2. J. B. McCorkle and S. H. Bell of S. H. Bell Co.

3. Campbell Baird arrived on the second day of the session.

4. H. A. Thomas of Shell, C. J. Dumas of Rohm & Haas, and Walter Andree of Sinclair.

5. Friar Thompson of Hercules, Bill Bjork of Sonneborn and Bill Zick of Stanco.

6. President J. L. Brenn of Huntington and Leonard Schwarcz of Clifton.

7. Bill Buettner, secretary of Pest Control Assn., and Harold King of Prentiss.

8. J. B. Magnus of Magnus, Mabee & Reynard.

9. Miss Debrita and George Tomčak of du Pont.

10. Van Italy of *Drug Trade News* and A. Pillet of du Pont.



I. & D. Mid-year Meeting

11. Bill Weed of Niagara, A. Pillet and George Tombak.

12. Strolling players added to the festive atmosphere of the cocktail party.

13. American Can's quarters were well frequented.

14. A pony ballet headlined the best convention floor show in years.

15. Dave Lynch of Powell, Charlie Opitz and Don Clark of Hess & Clark.

16. Larry LaCava of Continental, "King Kong" Ahles, and Preston Heller of B. Heller & Co.

17. Dave Hoyer of Powell manned the registration desk.

18. John Wright and L. M. Blickman of National Can are serenaded.

Acknowledgment is made to Charles Opitz, John Opitz, Inc., and to Hans F. Dresel, Felton Chemical Co., for their contributions to the Rogues' Gallery pictured above.

leisure and so bring forth more informed critical comment when it is brought up at the winter session.

Melvin Fuld of Fuld Brothers, Baltimore, spoke on "A Discussion of Testing Self-Polishing Waxes." He told of experiments along this line and outlined a method of testing which he believed to be advantageous in many respects. It is believed, he said, that the Sward rocker will prove to be one of the most important factors in testing the quality of self-polishing wax because it is indicative of so many combined factors, such as tack, hardness, slip, wear, powdering, chalking and numerous other tests.

A talk on "Facts About Carnauba Wax" was given by J. J. Connolly of W. R. Grace & Co., New York, speaking in place of the scheduled speaker, J. E. Godoy of the same concern, who had been detained on a visit to Brazil. The talk was of a non-technical nature and covered the production and marketing of carnauba wax. An interesting note was made that the importation of carnauba wax into the United States increased from 5,000,000 pounds in 1928 to over 12,000,000 pounds in 1937.

Gordon M. Baird of Baird & McGuire Inc., Holbrook, Mass. and chairman of the association's insecticide marketing committee gave a report entitled "Unfair Invitations to Bid." He outlined the work of the committee during the year and commented on specifications which have been set up by many states. Where a state was found to have fautly or unfair specifications, the committee made an effort to contact the proper officials so that the specifications might be corrected. Following his report, Mr. Baird asked that all manufacturers, when facing the problem of not being able to bid because of faulty specifications, write to the state officials explaining why they could not do so. This should also be reported to the association's marketing committee, which would also contact the proper officials. In closing, Mr. Baird asked that the insecticide scientific committee recommend impartial testing laboratories to government officials.

DR. WALTER H. EDDY of Good Housekeeping Institute spoke on "What Women Want in Insecticides and Why." His talk was based on numerous inquiries about insecticides and disinfectants made of the Institute by many housewives. He reviewed many of these questions and told of the efforts the Institute had made to answer them. Whenever possible, the Institute has told the housewife how to use the insecticide or disinfectant. This, Dr. Eddy believes, is something which the manufacturer of these products has neglected to do in full. The industry, he says, should give the consumer more information as to the application of its products.

An interesting non-technical talk, profusely illustrated with charts, was given by J. O. Peckham, of A. C. Neilson & Company. The principal theme of the talk was that no market research is complete without the measuring of consumer sales through retail outlets, and that the measurement of factory sales alone, is not a reliable indicator of the trend of the market.

E. L. Singler, secretary of the Maple Flooring Manufacturers Association, outlined the history and discussed the cooperative advertising program of his association, telling of the efforts made to acquaint the consumer with maple floor finishes. He told those present, that the rehabilitation of old maple floors with a properly applied heavy duty finish after resanding or scrubbing as required, offers a vast market.

R. O. Cowin of the Standard Oil Co. of Ohio, chairman of the Products Liability Insurance Committee led a discussion on "Products Liability Insurance." He made a plea to the association for further cooperation in collecting data on this subject, as results obtained in a recent questionnaire survey were not nearly as complete as they might have been.

Washington, D. C. was chosen from among five proposed cities as the location for the December meeting. This was thought to be the appropriate place due to the wave of new legislation and the heavy attendance of government officials which is expected at the next meeting. It was also decided to hold a two-day meeting, the exact dates and choice of hotel to be decided upon by the convention committee.

Henry A. Nelson, Chemical Supply Co., Cleveland, chairman of the association membership committee, reported that his committee had been successful in obtaining fifteen new members since the last meeting.

SIGNIFICANT among the resolutions adopted at the meeting were: that the Association request the manufacturers of pine oil products to cooperate with the proper committees of the association in developing and organizing chemical and bacteriological information regarding that type of product, and that the association avail itself of the opportunity of cooperating in the health and sanitation project of the National Association of Manufacturers, and to form a committee for that purpose. The resolutions committee was composed of Harold R. King, R. J. Prentiss & Co.; Preston Heller, B. Heller & Co.; Charles Dumas, Rohm & Haas Co.; Ellis Davidson, Ellis Davidson & Co., and W. B. Eddy, Rochester Germicide Co.

On Monday evening, many of those in attendance made a trip to the World's Fair. The convention closed with a cocktail party and banquet on Tuesday evening in the main ballroom of the Hotel Biltmore, with a floor show being put on after dinner.

The expenses of the cocktail party which preceded the banquet were shared by the following associate members: American Can Co., Aromatic Products Inc., Henry Barroll & Co., Breuer Electric Mfg. Co., Candy & Co., Continental Can Co., Dodge & Olcott Inc., P. R. Dreyer Inc., Dow Chemical Co., Federal Varnish Co., Fritzsche Bros., General

Drug Co., Givaudan-Delawanna Inc., General Naval Stores—Newport Industries, Hercules Powder Co., F. I. L. Lawrence, Magnus, Mabee & Reynard, MacNair-Dorland Inc., McLaughlin Gormley King Co., McCormick & Co., Monsanto Chemical Co., National Can Corp., Owens Illinois Can Co., Owens Illinois Glass Co., S. B. Penick & Co., John Powell & Co., R. J. Prentiss & Co., L. Sonneborn & Sons, Strahl & Pitsch, Upressit Products Corp., van Ameringen-Haebler Inc., T. F. Washburn Co., Wilson & Bennett Mfg. Co.

Registration List

Mid-year Meeting, National Association, Insecticide and Disinfectant Manufacturers, New York, June 5 and 6.

Agricultural Laboratories—I. H. Curie, H. E. Valtz.
Allaire Woodward Co.—Cady S. Corl.
American Can Co.—T. E. Alwyn, G. W. Meier, L. A. Trevisan, C. L. Lovell.
American Disinfecting Co.—Alexander Fabry.
American Dispenser Co.—M. B. Feinson.
Applied Research Labs—Thomas Durfee.
Aromatic Products Inc.—Edwin T. Booth, M. Lemmermeyer, C. L. Weston.
Associated Chemists Inc.—Arthur Srebren.
Atlantic Refining Co.—J. M. Hoerner.
Baird & McGuire, Inc.—Gordon M. Baird, C. C. Baird, Jack Varley.
Baldwin Sales Inc.—H. W. Baldwin.
Barrett Co.—R. C. Quortrup.
Barroll, Henry & Co.—James N. Davies.
Bell, S. H. Co.—J. B. McCorkle, S. H. Bell.
Black Flag Co.—Talbot J. Albert, E. R. Omohundro, James J. Reilley, H. L. Salomonsky, F. X. Tiddy.
Bobrick Mfg. Corp.—A. L. Bobrick.
Breuer Electric Mfg. Co.—A. A. Breuer, J. W. Stokes.
Buckeye Chemical & Spec. Co.—H. M. Epstein.
Buckingham Wax Corp.—Irving Wexler.
Candy & Co.—Robert M. Lockhart.
Chemical Supply Co.—Henry A. Nelson.
Clifton Chemical Co.—Dudley J. Bachrach, Leonard Schwarcz.
Cole, Geo. W. & Co.—Geo. W. Cole.
Collins, D. A., Mfg. Co.—Louis Campagnoli, Leo Lowenstein.
Continental Can Co.—O. G. Jakob, L. J. LaCava, S. J. O'Connor, D. Gladden Searle.
Davidson, Ellis Co., Inc.—Ellis Davidson.
Davies-Young Soap Co.—R. B. Trusler.
Derris, Inc.—R. F. Joyce, O. M. Poole, C. C. Sibley, R. Wotherspoon.
Dodge & Olcott Co.—Ralph W. Bush, Wm. F. Kroneman.
C. B. Dolge Co.—C. M. Delon, K. A. Dolge, Irwin Steig, Clarence L. Weirich.
Dow Chemical Co.—Jack A. Dorland, W. W. Allen, Fred Fletcher, A. M. Partansky, R. L. Wilson.
Dreyer, P. R.—F. J. Beyer, Charles Fischbeck.
duPont, E. I. deNemours & Co.—George J. Tombak, A. Pillet, F. W. Wolff, Sanford J. Hill, C. B. Alvord.
Durham Chemical Corp.—Eric Eichwald, Ruth E. Moore, M. Singer.
Federal Varnish Co.—M. J. Flanagan, John H. Lawson.
Frederick Disinfectant Co.—Fred A. Hoyt.
Fritzsche Bros., Inc.—B. F. Zimmer.
Fuld Brothers—Joseph Fuld, Melvin Fuld.
General Laboratories—Wm. A. Hadfield.
Givaudan - Delawanna, Inc.—R. M. Stevenson, R. A. Engel, William Gump, George M. Warren, A. T. Fiore.
Gulf Oil Corp.—Wallace Thomas.
Gulf Research & Development—W. A. Simanton.
Heller, B. & Co.—Preston B. Heller.
Hercules Powder Co.—G. F. Hogg, M. R. Budd, B. H. Little, Dan Lott, Jr., Paul Mayfield, Friar Thompson, L. P. Killilea.
Dr. Hess and Clark Inc.—Ray M. Batchelder, D. E. Clark.
Hooker Electrochemical Co.—C. H. Dickinson, Eugene McCauliff.
Hudson, H. D. Mfg. Co.—M. L. Harrison.
Huntington Labs. Inc.—J. L. Brenn.
Hysan Products Co.—Henry J. Brownstein.
Innis, Speiden & Co.—C. C. Johnson, P. L. Frost.
Kessler Chemical Corp.—W. W. Angus, J. E. Stonis.
Koppers Co.—K. A. Burke, J. H. Carpenter.
Kyoto University of Japan—Y. Inouye.
Lambert Pharmacal Co.—G. F. Reddish.
Lederer Bacteriological Labs.—Harold G. Lederer.
Lehn & Fink Products Corp.—E. G. Klarmann.
McCormick & Co.—A. Edison Badertscher, John N. Curlett, L. W. Jones, Charles P. McCormick.
McLaughlin Gormley King Co.—G. A. McLaughlin, John W. Purcell.
Magnus, Mabee & Reynard, Inc.—M. S. Barker, J. B. Magnus.
Maryland Glass Corp.—H. H. Gritzan.
Merck & Co. Inc.—Peter Dougan.
Midland Chem. Lab. Inc.—C. G. Filter, F. H. Kretschmer.
Midway Chemical Co.—L. D. Benedict, G. A. Bowden, Jack T. Hohenstine.
Monsanto Chemical Co.—A. T. Loeffler, Fred K. Renner.
National Can Corp.—L. M. Blickman, Wm. R. Janney.
Niagara Alkali Co.—James E. Ferris, Wm. J. Weed.
Opitz, John Inc.—Chas. T. Opitz.
Owens Illinois Can Co.—F. X. Beckman, L. C. Bohs, John W. Thayer, John W. Richardson, Earl F. Burns, John Duncan, Jr.
Owens Illinois Glass Co.—Wm. R. House.
Pease Laboratories, Inc.—H. D. Pease.
S. B. Penick & Co.—Thomas Lewis, Harold Noble, A. D. Penick, Fred F. Rauch.
Pittsburgh Coal Carbonization—Caleb Davies, Jr.
Powell, John & Co.—H. J. Ahles, Charles G. W. Campbell, Esler Johnson, Robert C. Kelly, D. W. Lynch, W. J. Haude, David G. Hoyer, Elmer J. Palmer, John Powell, G. R. Rinke, Alfred Weed.
Prentiss & Co., R. J.—R. A. Bevernick, Harold R. King, R. J. Prentiss.
Reefer-Galler, Inc.—M. S. Galler.
Reilly Tar & Chemical Corp.—W. G. Hirschfeld.
Rex Research Corp.—Oscar F. Hedenburg, H. W. Moburg.
Robbins, Geo., B. Disinfectant—Guy P. Robbins, Paul L. Robbins.
Rochester Germicide Co.—W. B. Eddy, J. A. Walsh.
Rohm & Haas Co.—C. J. Dumas, M. J. Rolstad, D. F. Murphy, R. M. Mueller, Jno. H. Mueller.
Salem Chemical & Supply Co.—E. S. Kelley, Jr.
Sanitary Products & Paper Co., (Div. of Crown Zellerbach Corp.)—A. L. Scharf.
Schimmel & Co.—W. H. Adkins.
Shell Oil Co.—R. L. Speer, H. A. Thomas.
Sinclair Ref. Co.—N. J. Gothard, A. G. Grady, F. O. Huckins, H. W. Linneen, E. F. Swanson.
Skinner & Sherman, Inc.—Burton G. Philbrick.
"Soap & Sanitary Chemicals"—Grant A. Dorland, W. E. Dorland, Norman Jowett, Ira P. MacNair.
Socony Vacuum Oil Co.—Alan W. Morrison, G. E. Smith, Arthur C. Pabst.
Sonneborn, L. Sons Inc.—R. W. Bjork, H. C. Green, Dr. Erich Meyer, F. J. Richter.
Standard Chemical Co.—David Kreekun.
Standard Container, Inc.—G. S. King.
Standard Naphthalene Prod.—A. Wiener.
Standard Oil Co. (Ohio)—R. O. Cowin.
Standard Oil Co. (Indiana)—J. G. Hamming.
Stanco, Inc.—Franklin C. Nelson, N. A. Sankowsky, W. J. Zick.
Strahl & Pitsch—Herbert Baer.
Takamine Corp.—S. Masui.
Tanglefoot Co.—Wm. J. Wagner.
Tumbler, J. A. Labs.—Laurent Jacques LaBrie.
U. S. Rubber Co.—W. P. der Horst.
Van Ameringen - Haebler—Philip E. Haebler, Sidney Friend.
Vestal Chemical Co.—Wm. F. Pollnow, Frank Pollnow.
Vick Chemical Co.—John H. Wright.
Vorac Co.—Robert J. Anderson.
Wackman Welded Ware Co.—I. C. Tarler.
Welco Products Inc.—B. B. Stoddard.
West Disinfecting Co.—A. L. Sodergreen.
W. Va. Pulp & Paper—A. T. Cirino, R. Hastings, Arthur Pollak.
White, Robert C. Co.—Robert C. White, Jr.
White Tar Co. of N. J.—H. W. Hamilton, E. Van Der Wolk.
Whitmire Research Corp.—H. E. Whitmire.
Williams Sealing Corp.—Carl A. Goltermann.
Wilson & Bennett Mfg. Co.—Joe F. Nelson, E. T. Statler.
Zonite Products Corp.—Charles E. Entemann, Jr.

Guests

Alling, F. K.—Assn. of American Soap & Glycerine Products Inc.
Buettner, William O.—National Pest Control Assn.
Campbell, F. L.—Ohio State University.

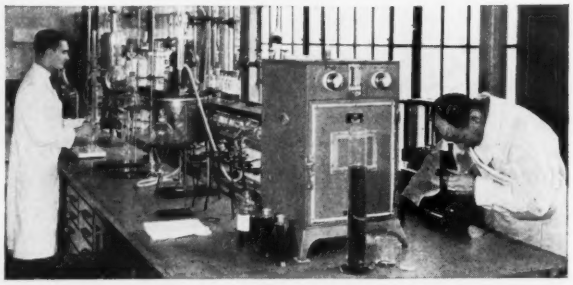
(*Turn to Page* 127)

Custom Bred Cockroaches!

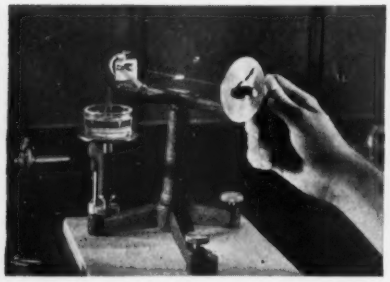
They help portray McCormick's Methods which assure you of Finer Pyrethrum and Derris Insecticides



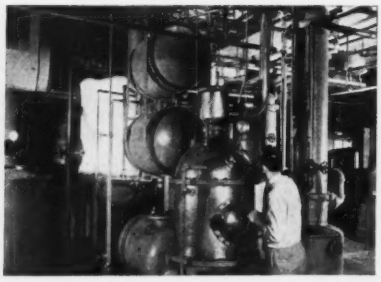
Cockroach Palace! Indicative of McCormick thoroughness are the actual tests on *live* insects to prove, practically, the consistently high killing power of McCormick insecticides. Illustrated is the specially-constructed, escape-proof vault in which roaches are raised for such tests.



Tests—Analytical section of the great McCormick laboratories where, among other daily tests of insecticides, chemical assay of pyrethrum flowers is made by the Gnadinger and Corl and H. A. Siel methods.



Exactitude—Nothing is left undone to insure the utmost effectiveness of McCormick insecticides. Shown here is the Tensiometer—a delicately balanced and adjusted instrument—used for determining the precise surface tension or covering factor of insecticide sprays.



Pyrethrum Extractor—Like a giant coffee maker, this extractor percolates ground pyrethrum flowers in a solvent, after which the solvent is removed under vacuum, leaving a powerful liquid pyrethrum extract used in producing insecticidal sprays.



Unique in laboratory equipment is this Campbell Turntable which facilitates the making of comparative insect-killing tests of several liquid insecticides at one time.



From Flower to Flour—Bales of Pyrethrum flowers from Japan, stored in the McCormick warehouse. Later, they are ground to a microscopic fineness, resulting in a vastly higher number of killing particles to the ounce. This permits closer adhesion to the vital parts of insects and insures a quicker, surer kill.



Bug's-Eye View of the great McCormick Building in Baltimore. Within this structure's 12½ acres of floor space is the most modern equipment for the manufacture and testing of insecticides. Nowhere in the world will you find Pyrethrum and Derris powders which are ground finer than those produced by McCormick.

McCormick

Pyrethrum Powder **Derris Powder**

Derris Extract **Derris Resinate**

Rotenone Crystals

Bee Brand Disinfectant

For further information address: The McCormick Sales Co., Baltimore, Md. In Canada address: McCormick & Co. (Canada), Ltd., 454 King St., West, Toronto, Canada.

INSECTICIDES

What does the housewife want to know about them?

By Dr. Walter H. Eddy*
Good Housekeeping Institute

THE following letter is typical of a horde of queries that come to us about this time of year each season. The subjects vary from moths to bed bugs, weevils, hornets, flies, mosquitoes and cockroaches but they all have one basic query in common: *What Shall I Use and How Do I Use It?*

"I have been a subscriber to your magazine for several years. I recently learned that if I wanted any household information, same would be answered for me by you. I trust this is so for I would like to know what I might use for moths, to spray on my clothes and furniture. I have lined my closets with tar paper but it has not helped at all. I find that they have now gotten in the clothes that have been put away in the bureau drawers. I have tried flakes but they have done no good at all; therefore, if you know of a spray which may be used I will greatly appreciate it if you would let me know."—Mrs. A. S.

We have tried to answer these queries in various ways. In the matter of moth control we have recently published an Educational Bulletin gotten out to serve a double purpose; to answer the most commonly asked questions on that subject and to help an insecticide manufacturer educate the people who sell the product.

At the end of that Bulletin we've summarized data in the form of Questions and Answers which indicate the scope of women's inquiries.

Question 1. Are moths a seasonal problem?

Answer: Moths thrive at a temperature around 70° F. Therefore, in heated houses they may live and attack property the year around, winter included.

To supplement that answer we've impressed on the housewife that since a single moth can lay 150 eggs in a lifetime she should be on the alert to catch and kill any of the flying pests at any season of the year they may appear; not simply confine her efforts to the spring cleaning and storage periods.

Question 2. What is the distinctive type of flying moth and at what stage does she lay her eggs?

Answer: The tiny clothes moth with the yellowish wings is the destructive type. At the stage when it is flying about, it is busy laying eggs. The eggs hatch out into little worms or larvae in which stage they do their damage by feeding on clothing and furnishings.

We hope that reply combined with the previous answer will interest every housewife in taking measures to kill flying moths and to keep them out of her clothes closets and other clothes receptacles. We also elaborate this answer to explain that *smells* will not repel moths from closets or clothing. We strenuously object to repellent claims on labels and directions. We can find no sanction for such claims in the scientific literature and apparently the Federal Trade Commission agrees with us for I culled the following from a cease and desist order of theirs:

> "The Blank Co. agrees to cease and desist from the use of phrases that impart or imply or which may have the capacity or tendency to confuse, mislead, or deceive purchasing consumers into the belief that said product, when used in clothes closets will repel, drive away, or repulse moths from such closets, when such is not the fact."

There are bugs that can be repelled by certain substances but moths are not! If you claim repellence please specify your bug or the Wheeler-Lea Bill will get you!

Question 3. What kind of materials do moths attack?

Answer: The larvae feed upon any materials that contain wool, feathers, hair, or fur.

Madame need not waste money on preventives for fabrics that moth larvae do not care to eat but we caution her about animal-grease spots on non-edible fabrics for in attacking these cottons and silks may suffer.

Question 4. Name methods that aid in fighting moths.

Answer: (1) Regular and thorough cleaning with vacuum cleaner and brush, with sunning if possible.

* Address before Natl. Assn. of Insecticide & Disinfectant Mfrs., New York, June 6, 1939.

(2) Dry cleaning and laundering.

(3) Use of oil sprays.

(4) Use of fumigants.

(5) Use of moth proofing preparations.

(6) Storage in properly made cedar chests.

(7) Storage in moth tight garment bags.

(8) Storage in wrapping paper with or without fumigants.

You will see by this list that it divides into three types of advice. The first two suggestions concern her action before she puts clothing away. The lady whose letter I read to you needed this advice badly. If she had thoroughly cleaned and made egg and larvae free those clothes she was to put in bureau drawers or hang in her tar paper closet she wouldn't have had so much damage.

The last three suggestions also concern her cooperation, for if my lady had properly wrapped the clothes before putting in bureau drawers, the flakes she bought, enclosed in the wrapped bundles would have proved their worth.

On the use of your insecticide offerings we try to be specific as to how they function and on how she must use them. Frankly, I think you would have far more satisfied customers if in your directions on labels or in advertising copy you would distribute advice in these three directions, viz.

What your product is designed to do.

What she must do before she uses it.

How she must dispose of clothing to obtain the protection your offering supplies.

I especially liked our advertisement of a moth bag we ran in our advertising because it gave especial prominence to these directions:

> "For complete moth protection have clothes properly dry cleaned by your cleaner and delivered completely sealed in ..... bags."

That advertiser insured success of his product by stress on those points.

Lots of women do not know that the heat of an iron run over a fabric will destroy larvae and eggs effectively. That a solution of laundry soap will kill and that plain hot water kills in a few seconds exposure of larvae and eggs to it.

Help them realize these things. Stress what they must do in cooperation to insure a fair deal for your product and you'll have fewer complaints and more customers.

Question 5. What is an oil spray?

Answer: An oil spray is a "contact" poison; a preparation which, if it really covers them with spray, will kill moths at any stage.

We have gone to considerable lengths to explain that term "contact poison," to teach that contact is necessary to destruction. Many women think that when they shoot a spray into a closet until they get a strong odor they've accomplished their objective. They have faith in smell and little realization of what "contact" means. You've got to educate them!

Question 6. What is a fumigant and when should it be used?

Answer: Fumigants are substances that give off fumes that kill moths at any stage *if these fumes are strong enough*. They are especially useful as storage preventives.

We get complaints from women, like our lady of the letter, who have used moth balls, paradichlorzenzene, or cedar oil freely but with absolutely no realization of what that phrase "strong enough" means. Also from women who fail to realize that destruction isn't immediate with these fumigants and that to get effects, the container must be tight enough to hold the fumes at proper concentration if killing effect is to ensue.

For some time I've felt that efforts of manufacturers to produce containers of fumigants convenient to handle or specially perfumed could have been better spent in educating the consumer that for effective action of paradichlor or naphthalene the important thing is how much to use in a given number of cubic feet of space and how to hold the fumes from escaping.

Women blithely put a few ounces of fumigant into a closet without sealing it up and blame you because clothes are riddled. They scatter flakes over furniture and except these unconfined flakes to kill or prevent moth eating.

They don't know any better and how are they to learn unless you tell them?

Question 7. How should moth proofing compounds be used?

Answer: Like sprays, good moth proofing compounds should be sprayed on the article so thoroughly that they cover every thread of the fabric.

In the present state of knowledge of the consumer and her lack of adequate equipment, we're strongly urging the leaving of moth-proofing to the expert. We do advise a moth proofing rinse as the last stage in laundering of blankets and woolen goods capable of home laundering.

Question 8. What is essential to the effectiveness of the moth garment bag, cedar chest, wrapping procedures?

Answer: These things afford complete protection only if they close so tightly that no moth can get in and before clothes are stored in them they should be thoroughly clean and moth, egg, and larva-free.

I have cited these questions and answers in the matter of moth control at some length, first because the bulk of our inquiries deal with this subject and second because they illustrate the type of ignorance among women that most often defeats your efforts to supply them with an effective insecticide.

The treatment of every insect problem in the household, however, involves exactly the same type of educative treatment if results are to be satisfactory. Supplying a gun and a spray won't rid a house or room of flies or mosquitoes unless you teach

how to use it. Customers will file complaints against your perfectly good insecticides simply because you've not explained to them the limitations of the product; what they must do to secure success.

We advertised at one time an excellent louse destroyer. The ingredients were, as stated, not toxic to humans or animals. But, one day I got a violent protest from a woman who used it on her canary and the canary died. What did we mean by guaranteeing it to be non-toxic?

Investigation revealed that she literally surrounded the poor bird with a cloud of dust powder and the bird died of plain suffocation. Nobody warned her on that score and if we hadn't followed that complaint up she'd have told all her friends that that powder was death to canaries!

You are now under the control of the Wheeler Lea Bill in the matter of advertising claims. You will soon be under the control of the new Food and Drug Act in the matter of labelling. Regulations under the latter act stress name, ingredients and address of the manufacturer.

I am frankly a little sceptical as to the significance of ingredients to the average user of the product. I am also fearful that the space occupied by these prescribed data may make you curtail directions for use. Those are what I wish to see made more complete and more legible. If you can't get full directions on the label I strongly advise liberal use of inserts to accomplish this end and I see no reason why more of this how to use shouldn't appear in your advertising copy.

The food ingredient people make very liberal use of recipes in their advertising copy and what are recipes but directions for use, meticulous in measurements and method of procedure.

I've studied insecticide and disinfectant labels and advertising copy rather extensively and on the magazine we've had to reject many because we simply couldn't guarantee success with the directions provided. I'm just now investigating the claims of a disinfectant recommended for disinfecting bath tubs. The product worked all right on the bottom of the tub but we're not sure of sufficient contact on the vertical surfaces to accomplish the effect claimed. We think the product can be made to work on such surfaces if it is handled right but we want to see such directions given.

We appreciate the exigencies of space limitation in advertising and the importance of attention compulsion to attract sales but we also know as well as you that repeat sales come only from satisfied consumers and we get the complaints in many instances before you do.

I appreciate the great strides your industry has made in developing insecticides safe to have in the home, effective for the distinction of particular bugs, in a form convenient to use. You've put time and effort into research to discover insect habits and biology. You've developed efficient tests to establish potencies and amounts needed to kill the pests.

My only suggestion today, based on a correspondence with your consumers over a period of twelve years is that you take them more into your confidence. Expand your directions. Place yourself in the housewife's place and write and print the sort of labels and directions you would give her if you talked over her problem with her personally.

—— ♦ ——

The roll tube-capillary dropping pipet method of estimating the number of viable bacteria in a suspension has a standard error of about 5 per cent when 4 tubes are used. About half this error is due to measurements of volume and half is due to the inevitable sampling error. It has been shown that the death rate of *Bacterium coli* in weak solutions of phenol is not constant, an initial lag period occurring. When the strength of the phenol solution is increased the lag period diminishes and with further increase no lag period was detectable. When no lag period occurs, the death rate corresponds to that of a unimolecular reaction. It is suggested that sporting organisms and relatively strong solutions of bactericides should be used for the evaluation of bactericidal action in order to eliminate the lag period. E. R. Withell. *Quart. J. Pharm. Pharmacol.* **11,** 736-57; through Chem. Abs.

—— ♦ ——

Activated gelatinous aluminum oxide is made by precipitation by ordinary means and then either (a) aging the precipitate mixed with water, for 2 or 3 days, (b) exposing the precipitate to the action of ultraviolet light or other electromagnetic rays, or (c) suspending the precipitate for a few hours in boiling water containing a little alkali. The alumina may be precipitated in a solution containing 0.1-5.0 of gelatin or other lyophilic colloid. The product is used in making stable aqueous emulsions for soaps, polishes, cosmetics and numerous other purposes. T. W. Dickeson. Australian Patent No. 105,547.

—— ♦ ——

A mixture to be incorporated in small proportions in the usual dry-cleaning solvents such as benzine, trichloroethylene, perchloroethylene, or white-spirit,—is composed of tetralin, absolute alcohol, ammonia dissolved in alcohol, and oleic acid or other fatty acid. The mixture may also contain xylene, and tetralin may be replaced in part by hexalin, methylhexalin, cyclohexanol or cyclohexanone. Frederic C. Niedmann. French Patent No. 831,884.

—— ♦ ——

Improvements in the production of polyphosphates, particularly in the direction of larger yields, are made by calcining mixtures of primary and secondary alkali orthophosphates at temperatures below the sintering point. The polyphosphates obtained are especially suitable as detergents, cleansing and water-purifying agents, as in dispersing and dissolving lime soaps. Chemische Werke vorm H. & E. Albert. British Patent No. 495,192; through *Chem. Trade J. & Chem. Engineer* **104,** 4 (1939).

An Insecticide is no better than its ability to penetrate

"D & O" ESSENOL

Imparts to Contact Insecticides the Essential Property of Penetration

For Increased Kill—Decreased Cost

"D & O" ESSENOL, made from specially processed essential oils, is insecticidally active. Its chief value however lies in its remarkable ability to increase the toxicity of the usual insecticide bases by increasing their power of penetration. Pyrethrins and Rotenones provide the necessary toxicity

Essenol carries it in **Penetration does it**

Supplied in two types—"OT" and "OPT"

ESSENOL "OT" ($2.25 per gallon in drums, F O B New York) has a clean, distinctive odor, requiring no perfume to cover kerosene. 2 parts mixed with 3 parts Pyrethrum Concentrate No. 20 (2 grams to 100 cc) makes a concentrate fully as powerful or more so than Pyrethrum No. 20, with profits increased up to one-third. The mixture may be obtained from us as Pyressenol No. 20.

ESSENOL "OPT" ($2.50 per gallon in drums, F O B New York). The same as Essenol "OT" except that it embodies a pleasing perfume odor. It may be combined with Pyrethrum No. 20 the same way and with as good results as when Essenol "OT" is used. The mixture may be obtained from us under the designation Pyressenol "OPT".

Send for our pamphlet for full benefits

"We hope to see you at the New York World's Fair in 'The Hall of Pharmacy'."

DODGE & OLCOTT COMPANY

180 Varick Street . . . . New York, N. Y.

BOSTON : CHICAGO : PHILADELPHIA : ST. LOUIS : LOS ANGELES

Plant and Laboratories . . . . Bayonne, N. J.

D&O

ESTABLISHED IN 1798

Does the Drug Law Apply?

The position of disinfectants and insecticides under the new Federal Food, Drug and Cosmetic Act explained

By Dr. H. C. Fuller*

THE main topic of this report is the Federal Food, Drug and Cosmetic Act, how it affects manufacturers and dealers of insecticides, disinfectants and fungicides, and how products subject to the provisions of the law should be labeled.

Insecticides and disinfectants may become subject to the new law if they are intended in any way either by employment or by direction, to be used for the treatment of a diseased condition or to prevent a disease in man or animals. Under these conditions they are classed as drugs under Section 201 Paragraph G of the Act. Furthermore any substance, any ingredient that is a component of an insecticide or disinfectant that falls within the classification of a drug, is itself declared to be a drug under the same paragraph, and when handled for compounding such insecticides or disinfectants must be labeled according to the provisions of the act, and its purity as an individual article carefully determined.

Under the definition it will be seen that, as concerns certain products, the claims advanced for them may determine their classification. For example the directions for a disinfectant of a certain composition may include treatment of lice that infest stock to the point of producing emaciation, and it may also be recommended as an application for cuts, scratches, and wounds resulting from dehorning and castration. Any one of these claims would make it a drug and subject to all the provisions of the new law, as well as the Insecticide Act of 1910 to which it is of course already subject. But the same identical composition without such claims would be subject only to the Insecticide Law. On the other hand arsenical dips intended to destroy the tick responsible for cattle fever infection would, regardless of claims, be classed as drugs under any and all conditions.

Before going further it might be well to point out the types of articles in which the membership is interested that are not affected by the new legislation. These include:

1. Horticultural and garden sprays, fumigants for vegetation, dusts for controlling the boll-weevil, sprays for San Jose scale and articles of similar purport.
2. Disinfectants designed for inanimate objects and fumigants for buildings.
3. Fly, roach and flea powders, fly repellants for stock and household use, lice powders for poultry and pet stock and sprays for the red poultry mite.

The types of articles subject to the act are limited in number, but the volume to the industry may be material. They include:

1. Arsenical dips for controlling the tick responsible for Texas or cattle fever.
2. Lime Sulphur compositions intended for the treatment of sheep and cattle scabies and lice, hog mange and sheep ticks.
3. Nicotine Solutions if sold for treating scabies and mange, but not included if recommendation covers only aphids and other garden pests.
4. Petroleum Oil compositions that may be designated as washes or sprays for hog mange.
5. Cresylic Acid disinfectants if recommended for use on man or animals.
6. Coal tar Disinfectants in general, Pine Oil and Hypochlorite disinfectants if directions include application to the human or animal body for remedial purposes.

Human delousing mixtures would naturally fall in the drug class since the human body louse is responsible for the spread of typhus fever. There are of course borderline products, the status of which is still undetermined as for example sprays that are designed to destroy flies that are the apparent source of equine encephalomyelitis, and agents for treating dogs and humans for the tick responsible for infection of Rocky Mountain or Spotted Fever. In my opinion products of this and analogous nature will eventually become subject to the law.

*Address before Natl. Assn. of Insecticide & Disinfectant Mfrs., New York, June 5. Dr. Fuller is N.A.I.D.M. technical consultant.

HAVING noted the types of insecticides and disinfectants that may be subject to the provisions of the act, we might investigate the law itself and determine what it sets out to accomplish. In other words, if a product comes under the law what is the reason for its being included, and who benefits thereby?

The new law and the model state laws, are almost purely consumer protective in nature. Unfair competition while incidental, plays the minor role. The old law covered the traffic of food and drugs in interstate commerce and insofar as concerned the latter, provided penalties for false and misleading statements on the label concerning the composition, and false and fraudulent claims regarding their effectiveness. When passed the old law had plenty to do, but the abuses that were in many instances prevalent at that time, have either disappeared through control or education, and new difficulties have arisen that could not be handled under the old act.

Moreover the consuming public at large has become inquisitive and special groups demand more detailed knowledge about what they consume and what are offered to them for consumption than they did thirty, twenty or even ten years ago. They want to know what composes the articles that are offered for remedial purposes, what limitations there are to their application, whether or not they contain dangerous drugs that may be injurious if used in excessive amounts or under the usual conditions of application. If new chemical substances enter into the composition have they been amply tested to demonstrate their safety as individuals as well as under the special conditions that they occur? What is the weight or volume of the content of the package, and who is responsible for these articles on the market? The new law makes provisions for all this and much more that was not mandatory under the old act.

Hence after one has determined the status of his insecticide or disinfectant under the act, he must look into the question of the composition, determine whether it contains any ingredient new for that type of composition, and ascertain its status as a safe substance for use on the human or animal body. He must determine the quantity of each active component of the mixture so that he can provide for the proper disclosure under labeling clauses that require the quantitative disclosure of certain ingredients such as arsenicals, and the qualitative disclosure of others in the order of their remedial value. He must provide proper directions for application, and if by dilution with water, the effectiveness at the dilution specified should be definitely ascertained because the truth or falsity of the claims are dependent thereon (for example a disinfectant may be noted as a treatment for abrasions and scratches due to barbed-wire, but if on testing it at the dilutions recommended, it should prove ineffectual against test organisms in the laboratory, the product would be misbranded).

The volume of bottles, carboys, barrels, cans and other containers of liquids that carry articles classified as drugs should be carefully ascertained and standardized if necessary so that the average content may be within reasonable limits of accuracy with the figures that are required to be placed on the main label. By main label is meant that portion of the labeling that is prominently displayed on the package which carries the name of the product, the name and address of the manufacturer or distributor, the active ingredients, as well as the net content above noted in terms of the largest unit, either in the avoirdupois or metric system. Claims for the purposes for which an article is intended may or may not be placed on the main label, and adequate directions for use with cautionary statements when necessary should be given due prominence on a side or back panel as part of the permanent labeling.

The proper labeling of insecticides and disinfectants that are subject to the new law is complicated because of the application of certain provisions of the Insecticide Act. Not that there is a conflict in the application of the two laws, but because of the necessity of proper compliance with the term "Active Ingredient," wording which occurs in both laws.

Under the Insecticide Act, arsenicals must carry on their labels disclosures as to the total arsenic and water soluble arsenic content of the composition in percentage by weight and same being noted as active ingredient. In the case of other products one has the choice of disclosing the active ingredients individually as the percentage present, with a general statement about inert ingredients; or to declare the active ingredients as such and name each and every inert substance with the proper percentage. But under the new law affecting drugs, the labels of arsenicals must show the arsenical salt or other derivative of arsenic in quantitative proportion. So in addition to the requirement of the Insecticide Act, the additional disclosure required by the new drug law must be inserted.

Lime-sulphur compositions, cresylic acid and other coal-tar disinfectants if offered for any purpose of a remedial nature, are required to carry a disclosure of the active ingredients. These disclosures need not as far as I have been able to ascertain be quantitative under the new law, but since they should be noted on the label as active ingredients, and as the Insecticide Law provides for an optional disclosure of active ingredients in quantitative amount, it may be simpler to make the statement on the label in this manner rather than to name each and every active substance followed by the quantitative disclosure of each and every inert substance.

The Insecticide law contains no provisions covering content or name of manufacturer or distributor. Under the Food and Drug act both are mandatory and in addition the street address must be given unless

the firm is listed in the city or telephone directory.

A FEW words are in order about the provisions having to do with new drugs and the ingredients used in compounding your products. They are entirely separate provisions but have certain features in common. Several unfortunate accidents have occurred during the past decade due to the distribution of articles composed in whole or in part of chemical substances that had not previously been intended as remedial agents, themselves or as vehicles in which remedial agents were featured. But regardless of the purpose, the situation became so serious that the law makers were actuated to make definite provisions for their restriction unless adequate information was available to warrant their unrestricted employment.

Hence it is now incumbent upon one who desires to include in his line something that has not heretofore been in common use, to furnish the administrative authorities with full and accurate information concerning the article, particularly as to its physiological effect not only as an individual substance, but in the composition that it will function, to provide complete data as to means for ensuring its purity and full directions as to how it will be compounded into the mixture in which it may be featured.

Furthermore a chemical substance that may not be new by actual discovery or introduction, is considered a new drug, if it has not been previously used for the definite curative effect for which the distributor proposes to make claims, and again a radical change in dosage from that which has been generally recognized will make a substance a new drug according to the interpretation of the law by the Administration. Details for obtaining permission to dispense such products or compositions containing them are in operation.

As for the ingredients of compositions that fall within the classification of drugs and which are themselves made subject to the act in Clause 4 of Section 201 G, it is incumbent upon the producers, as well as the users of the same, to ascertain their purity and safety for employment in the particular article that may be under consideration. Producers of such chemicals or mixtures, whether they be active ingredients or vehicles, should ascertain the purposes for which they are intended if the purchaser is a compounder of mixtures carrying remedial claims, and see to it that the supply is of proper quality with no impurities that may be dangerous or likely to subject his customer to complications with the law. The user should check the purity of his components by proper analytical procedure and for further protection make purchases only upon adequate specifications that will provide for exemptions from impurities that might gain access through careless or accidental means.

The facts that one can present in a statement of this sort must of necessity be limited in scope and can only be a general guide to the handling of products affected by the new conditions. Nearly every article presents individual problems depending on the uses for which it is intended, is composition, form of label, shape and size of package, etc. It is really an individual problem.

There are many questions of interpretation of sections and paragraphs of the law as it applies to individual situations, that will require careful study before opinions can be rendered. There will be instances where the administrative officers will differ among themselves and final determinations can only be rendered by the courts. There will be conflicting rumors in the trade about rulings actually rendered, or in process of rendition and only of speculative import. It behooves the individuals affected by the act to maintain an attitude of composure and to ascertain of their own knowledge the application of the law to their particular products and the truth or falsity of weird rumors respecting this and that provision of the law. There is really nothing so terribly revolutionary in the situation. It is actually getting certain features of your operations in line with the inevitable trend of events.

—— ♦ ——

pH of Commercial Antiseptics

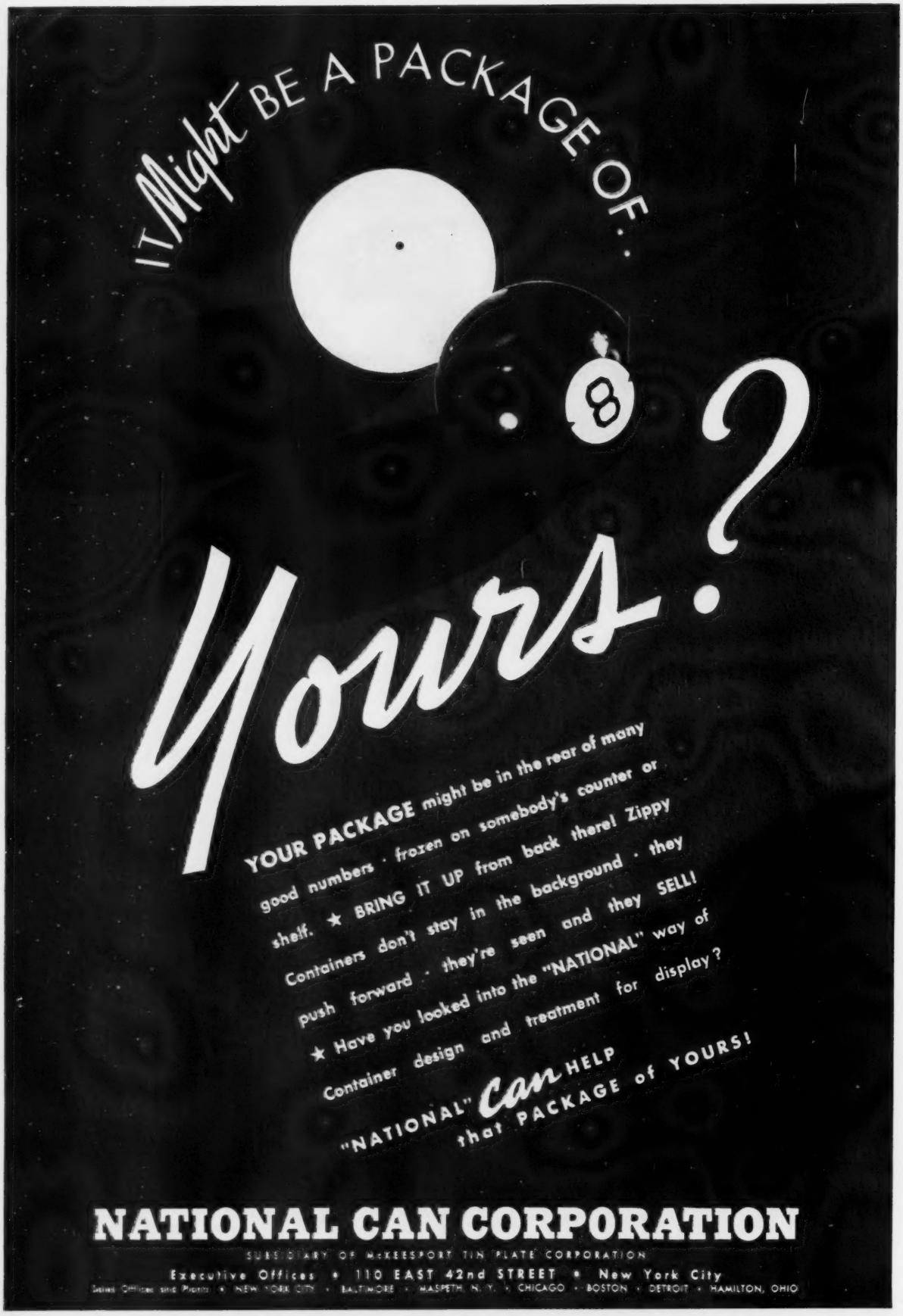
Acidity is an important factor in bactericidal action. Phenylmercuric nitrate, Merthiolate, Metaphen, Mercurochrome, tincture of iodine, phenol, Hexylresorcinol, and acriflavine were studied under controlled conditions of pH with respect to their bactericidal properties against *Staphylococcus aureus* and *Escherichia coli*. Metaphen and Merthiolate could not be adjusted, and acriflavine gave negative results at the concentrations tested. All the others showed increased potency with an increase in the hydrogen-ion concentration. Phenyl mercuric nitrate, for example, is effective in a dilution of 1 part in 10,000 at pH 7; at a pH of 3 its potency against *Staphylococcus aureus* is increased tenfold. At a pH of 4 phenol showed a 25 per cent increase in effectiveness over that at pH 7.

The results indicate that, except for interfering factors such as increased insolubility or instability, these diversified antiseptics show a definite increase in effectiveness with an increase in hydrogen-ion concentration. The results indicate that the "hydrogen-ion effect" increases progressively up to a maximum for benzoic acid, the phenyl alkanoic acids, phenyl mercuric nitrate, Merthiolate, tincture of iodine, Hexylresorcinol, phenol and closely related compounds, and some inorganic salts. W. A. Bittenbender, E. F. Degering and P. A. Tetrault. *Ind. Eng. Chem.* **31,** 742-4 (1939).

—— ♦ ——

Moth-proofing Liquid

A moth-proofing liquid consists of a solution of triethanolamine silicofluoride in alcohol or some similar organic solvent. Merck & Co., Inc. Canadian Patent No. 381,574.


IT Might BE A PACKAGE OF...
8
Yours?
YOUR PACKAGE might be in the rear of many good numbers · frozen on somebody's counter or shelf. ★ BRING IT UP from back there! Zippy Containers don't stay in the background · they push forward · they're seen and they SELL! ★ Have you looked into the "NATIONAL" way of Container design and treatment for display?
"NATIONAL" can HELP that PACKAGE of YOURS!
NATIONAL CAN CORPORATION
SUBSIDIARY OF McKEESPORT TIN PLATE CORPORATION
Executive Offices • 110 EAST 42nd STREET • New York City
Sales Offices and Plants: • NEW YORK CITY • BALTIMORE • MASPETH, N. Y. • CHICAGO • BOSTON • DETROIT • HAMILTON, OHIO

Label Claims

A brief comment on label statements for economic poisons from the angle of the enforcement official

By Dr. Alvin J. Cox*

Chief, Division of Chemistry
California Dept. of Agriculture

THE question and answer "clinic" on labeling, held in connection with the meeting of the National Association of Insecticide & Disinfectant Manufacturers in New York is something especially to arouse the interest of every administrative officer. In most cases delinquencies in labeling economic poisons are the result of lack of comprehension rather than deliberate intent. We spend days of time, not only in explaining the unacceptability of existing statements, but in elaborating with regard to what type of labeling California law does permit. It is a healthful sign when industry too will take the initiative in education.

To an occasional person the definite labeling requirements fixed by statute are bothersome but these hardly need discussion. However, the ones which involve possible misrepresentation or ambiguous, extravagant, or indefinite claims or terms require the greatest attention. One must avoid statements that are too broad.

A "trade name" is not acceptable as the name of an active ingredient. There is a failure on the part of some to differentiate between "extract" and "extractives." The former is indefinite and may contain very little or a great deal of extractives, with which we are concerned. We cannot accept as an active ingredient of an economic poison such an indefinite statement as "Petroleum extract of pyrethrum" any more than we can an unknown trade name.

Section 1064 of the Agricultural Code of California states:

"Economic poison is misbranded when:

"(a) The package or label thereon bears any false or misleading statement, design, or device regarding such article or the ingredients or substances contained therein.

"(b) . . .

"(c) It is an imitation or offered for sale under the name of another article.

"(d) It is labeled or branded so as to deceive or mislead the purchaser.

"(e) . . ."

Section 1064 (c) is one of the justifications for the department not registering the same brand name to more than one firm. Subparagraphs (a) and (d) are requirements that need a deal of explaining. Some look amazed when the Division of Chemistry asks them to remove from a label or prove a statement such as that "XYZ is the most efficient fly spray on the market," whereas the statement, "An efficient fly spray" is acceptable. Misrepresentation accomplished by size, style, and placement of type, as well as wording, must be deleted. In the association of a word such as "activated," "stabilized," or "colloidal" with an economic poison the implied characteristic must be capable of proof.

There still are economic poisons registrants who cannot think of a product as poisonous unless it is an acute poison and kills someone. Any material that will poison pests is probably at least insidiously harmful to man. While it is true that a material may be lethal or not depending upon the amount of it that is ingested, if that material can exhibit a toxicity in some possible application, it can not be truthfully labeled "nonpoisonous."

The poisonous or injurious properties of insect or pest poisons do not change, but the handling of these materials is a changeable situation which no one can control, least of all a manufacturer or a distributor of the poison; nor is it possible to instruct directly or control individuals who handle or actually apply these poisons in practice. If insects can be poisoned, so can humans. There is involved here the problem of safety in handling and usage of potent agents, in fact drug-like materials, which involve many individuals and the public as a whole. This problem is always given much consideration in medicine. The poisonousness of a material is a fixed characteristic and it is neither diminished nor increased when used as directed. It is a characteristic of that material as its color, odor, taste, or density, and in no way depends upon its manner of use. For example, a can of lye or a bottle of sodium hypochlorite solution contains a poison, and the fact that they may be satisfactorily employed without causing injury is beside the point.

This division takes exception to the use of the terms "safe," "harm-

* Comments apropos "Label Clinic" held at the 26th mid-year meeting, Natl. Assn. of Insecticide & Disinfectant Mfrs., New York, June 5.

It's Quality That You Want To Sell

SOAPS
WAXES
DEODORANT
-BLOCS
-CRYSTALS
-SPRAYS
DISINFECTANTS
INSECTICIDES
POLISHES
CLEANERS
FLOOR
TREATMENTS
PLUMBING AIDS
URINAL
STRAINERS

HERE IT IS . . . . .

A LARGE STURDY AUTOMATIC WAX APPLICATOR

Now, floors can be waxed beautifully and more quickly at a lower cost.

Not only saves time, labor and money, but gives greater coverage and eliminates the waste of wax.

Applies the wax more evenly, thus reduces slipperiness.

Holds approximately one gallon of wax. Size of pad 6″ x 15″.

Write today for details. We will tell you how you too can sell more wax.



HYSAN PRODUCTS COMPANY

Manufacturers of Sanitary Specialties

2560 ARMITAGE AVE. CHICAGO, ILL.

Announcing

HYDROGENATED AROMATICS

. . . a new line of Coal-tar Chemicals of exceptional purity and wide application

THE Barrett Company, America's leading manufacturer of coal-tar chemicals, presents its new line of hydrogenated coal-tar products. All are of 98-100% purity.

Cyclohexane and methylcyclohexane are cyclic hydrocarbons recommended for use in recrystallization and extraction purposes, and as solvents for fats, oils, waxes, and crude rubber.

Cyclohexanol and methylcyclohexanol are cyclic alcohols. They find wide use in the synthetic chemical, soap, textile, synthetic resin, lacquer, paint and varnish, polish, printing ink, leather and rubber industries.

Cyclohexanone and methylcyclohexanone are cyclic ketones. They are particularly effective in the synthetic chemical, cellulose and synthetic resin lacquer, rubber, textile, printing ink and plastic industries.

Complete information and samples on request.

CYCLOHEXANE 98-100%
METHYLCYCLOHEXANE 98-100%
CYCLOHEXANOL 98-100%
METHYLCYCLOHEXANOL 98-100%
CYCLOHEXANONE 98-100%
METHYLCYCLOHEXANONE 98-100%

THE BARRETT COMPANY, 40 Rector Street, New York, N. Y.

America's leading manufacturer of coal-tar products. *Roofings • Tarvia • Chemicals*



less," "non-poisonous," and the like, on three grounds. In the first place, it is doubted if any economic poison is harmless in all possible applications. Any such material sold to the public is subject to careless and indiscriminate use; and it is false and misleading to label a material "safe" or "harmless" if it may be so employed as to cause damage. While it does not seem reasonable to hold a manufacturer responsible for the damage caused by the misuse of his product, it is considered misleading for him to encourage such misuse by declaring it to be "safe."

There might be some justification for claiming the injuriousness of a material to be dependent upon its manner of application, and no objection is made to the statement, "Non-injurious when used as directed" if such claim can be substantiated by the manufacturer or by facts otherwise available. We permit a statement worded in this manner on the label of a pyerthrum fly spray, but there would be no point to making such a statement on a field spray.

In the second place, any supposed non-toxicity of a material to humans is subject to possible disproval by subsequent investigations, as has been the case, for instance, with fluorine and rotenone, which were once popularly regarded as "non-poisonous." Any such claim is therefore possibly false and misleading, and would tend to encourage the careless and indiscriminate use of a material whose hazards may not be fully established. For example, sodium fluoride was once popularly heralded and regarded as non-toxic. This division has in its files a label which appeared on a sodium fluoride sold by a reputable and conscientious manufacturer not very long ago, on which is stated in capital letters "*sodium fluoride is not a poison.*" As you probably know, the medical journals contain many references to deaths caused by fluorine poisoning, although probably there are still many uninformed people who believe the material to be harmless.

The following irritant actions have been described in the use of pyrethrum and pyrethrins in animals: dermatitis in the anal region, delayed conjunctivitis, and general dermatitis. Following oral or gastric administration in rodents, these changes have been reported: congestion of the lungs, which indicates some vascular irritation; peritonitis; changes in gastric mucosa; loss of hair and skin in guinea pigs, not in rats; irritation more marked in rats than in guinea pigs. These systemic phenomena would agree in general with the local irritant effects. These effects have been demonstrated with pyrethrum and extracts of this agent. While it is true that these agents would not be ordinarily taken by mouth, or injected in humans, these reactions of the tissues indicate that pyrethrum is a protoplasmic poison. In other words, pyrethrum and extracts of it possess potentialities for injury or toxicity to living tissues. The general injurious action to protoplasm is, of course, consistent with the insecticidal action of this agent and its products. This is probably true of all intensifiers of fly sprays and other household insecticides.

Illuminating in this connection are the following quotations from circulars of a manufacturer of pyrethrum, pyrethrins and extracts of this agent: "*Spray It—They Die*"; "*No Danger Since It Is Only Toxic to Insects and Lower Forms of Animal Life.*" These admissions of toxicity are strikingly consistent with the reported protoplasmic toxicity in animals, and man being an animal, this makes it perfectly clear that these materials are potentially injurious and toxic to man. While no investigations of the effects of the inhalation of dusts or sprays of pyrethrum and its allies are known to have been reported in animals or man, it is reasonable to expect that inhalation of this material could result in irritation of the respiratory passages. The effects of such inhalation would tend to be more marked in sensitive or allergic individuals. Since pyrethrum and its allies are not necessary for human consumption and are actually injurious to living tissues and protoplasm, perhaps the public should be cautioned. We have not required that there should be warning labels on packages or containers of pyrethrum and its allies distributed to the public, to the effect that these materials are irritating, dangerous if inhaled, that free and indiscriminate use should be avoided, and that care should be exercised in handling them. However, such expressions as *non-poisonous, non-injurious, ideal safe plant spray*, or *which is non-poisonous to man or animal* are misleading and non-informative as to the true character of the material and are not permitted. The use of most fly sprays in the presence of an open flame constitutes a distinct fire hazard. These sprays have been the cause of many cases of accidental poisoning, particularly of children who swallowed them. The Health Officer of Indiana reported more accidental deaths of children from drinking kerosene than from any other one cause. Fly sprays have been inadvertently used on plants and on small animals thereby causing serious damage. Crudely applied pyrethrum and rotenone dusts have caused the death of caged birds; although investigation leads us to believe that any "inert" powder similarly used might induce respiratory troubles and that their toxic effect is not directly attributable to the pyrethrins or rotenone in such cases.

In the third place, even though a material has been extensively used without any evidence of a toxic effect having been observed, there is the possibility that attempting to sell it on its negative characteristics (i. e. its lack of toxicity) instead of on the basis of its value for the purpose of insect control may constitute a violation of that part of the law which prohibits false and misleading statements in connection with the sale of economic poisons. Such claims may constitute unfair competition with the sale of other economic poisons (such as fluosilicates and arsenicals) which may be equally suitable and as effectively used without undue hazards to public welfare. It is necessary to use many poisonous substances for

(*Turn to Page* 113)

FED-CO PENETRATING SEALER

The Most Modern Development in Wood Floor Sealers



—Prevents Floors from Wearing Down

—Prevents Dirt from Working into Fibres of Wood.

- It Makes Floors Last Longer
- It Keeps Floors Handsome
- It Makes Floors Easy to Clean

Fed-Co Sealer penetrates deeply and perfectly—seals the pores up to the walking surface with tough, wear-resisting Bakelite. Resists wear, washing, alkalis, acids, boiling water, etc. Applies quickly with mop. Dries in about 4 hours. Approved by Maple Flooring Ass'n.

FEDERAL VARNISH CO.

FLOOR FINISH DIVISION

DEPT 79—331-339 S. PEORIA STREET

CHICAGO

Registered Trade Mark

FUMERAL

Pat. Sept. 1934 Pat. Aug. 1938

INSTANT DIFFUSER

Connects with factory steam or air line or operated by Fumeral Portable Air Compressors.

WE SPECIALIZE

● Since 1932 we have specialized in the design and manufacture of various Stationary and Portable liquid diffusers and sprayers for the commercial dispersion of insecticides, disinfectants, deodorants, fumigants, chlorines, caustic soda solutions, perfumes and liquids of all kinds.

POWERFUL DEADLY PENETRATION

● Fumeral Instant Diffusers create a dry, smoke-like, death-dealing fog that does not precipitate, but instantly penetrates every corner and crevice of a room regardless of its size, and continues to float in the air for several hours.

NO SPECIAL LIQUIDS REQUIRED

● Fumeral does not require specially prepared liquids or concentrates. Various commercial brands — all work well in both Fumeral Stationary and Portable diffusers.

EFFICIENT — ECONOMICAL — INEXPENSIVE

● Fumeral users from coast to coast continually report about Fumeral efficiency, dependability and substantial savings on liquids. — Easy to clean. — There are no moving parts. — Nothing to get out of order. — Turn on the valve and in a few minutes the job is done. — Available steam or air pressures from 30 up to 200 lbs. may be used without any adjustments.

RECOMMENDED AND SOLD BY

● Fumeral Stationary and Portable Diffusers are recommended and sold by leading manufacturers and distributors of insecticides and fumigants. See 1939 "Soap Blue Book." Write for illustrated literature, "Modern Warfare On Insects," data, and prices.

FUMERAL COMPANY

RACINE, WISCONSIN

We do not sell insecticides or fumigants.

Rotenone Series Compounds

A study of toxicity to the housefly of optically active and inactive compounds of the rotenone series

By W. N. Sullivan, L. D. Goodhue, and H. L. Haller*

Bureau of Ent. & Plant Quarantine, U.S.D.A.

IN ADDITION to rotenone a number of other compounds have been isolated from derris and cube. These include deguelin[6], tephrosin[7], toxicarol[5], sumatrol[2], and elliptone (derride)[17], which was shown by Harper[14] to be the optically active precursor of the compound discovered by Buckley[1]. Rotenone, deguelin, and tephrosin have been obtained from both derris and cube, but toxicarol, sumatrol, and the newly discovered compounds so far have been found only in derris. Toxicarol and deguelin were first obtained only in the optically inactive (racemic) form. Recently, however, Martin and Tattersfield[16] have isolated the levo form of toxicarol, and Haller and LaForge[13] have shown that deguelin also exists in the levo form but only the inactive compound has been crystallized. Although rotenone has been regarded as the principal insecticidal component of derris and cube, several of the other compounds have been found to possess considerable toxicity to insects.

In previous toxicity tests on rotenone, deguelin, toxicarol, and their derivatives, the compounds possessing optical activity were superior to the racemic forms. Davidson[8], using *Aphis rumicis* L., found the racemic forms of toxicarol, deguelin, and tephrosin to have very low toxicity. Fink and Haller[9], using mosquito larvae, found racemic isorotenone and dihydrodeguelin to be much less toxic than the corresponding levo forms. They also found racemic deguelin to be very low in toxicity. Tattersfield and Martin[18] tested both levo and racemic toxicarol and found the former to have considerably more insecticidal action. They suggested that the toxicity of certain types of derris was due largely to this compound. Chemically pure levodeguelin has not yet been prepared, but since the toxicity of levo-dihydrodeguelin approaches that of rotenone, Haller and LaForge[8] believe levodeguelin to be one of the more toxic constituents of derris and cube resin.

In toxicity tests where it is necessary to use the insecticide in the form of a suspension, its physical state may have some bearing on the results obtained [3, 18]. In general, the racemic compounds of the rotenone series have a much greater tendency to crystallize than do the optically active forms. When a suspension is prepared by pipeting an acetone solution of the compound into water, the optically active forms may remain in a highly dispersed state while the racemic forms may tend to form larger particles by crystallization. This may explain some of the low results on the racemic compounds, but it is probably not the only factor involved. For instance, Hartzell and Wilcoxon[15] found pyrethrin I to be (about 10 times) as toxic as pyrethrin II when applied in acetone solution, but when applied in a highly refined kerosene this difference in toxicity almost disappeared. Since neither of the pyrethrins is crystalline, obviously the tendency to crystallize plays no part in this case. The toxic action of most organic compounds is so complicated that no one explanation can be given for some apparently peculiar behavior.

The effect of the optical activity and method of application on the toxicity of some compounds of the rotenone series has been studied, and in this paper tests against the housefly (*Musca domestica* L.) are reported.

Preparation of Compounds

A cube root found to contain 2.2 per cent of deguelin by gravimetric analysis[11] was used for the preparation of a levodeguelin concentrate. A chloroform extract of the root was taken up in ether and extracted three times with 5 per cent potassium hydroxide in saturated sodium chloride solution. The ether solution was washed with dilute hydrochloric acid in saturated sodium chloride solution without delay to minimize racemization of the optically active deguelin. The ether was then removed and the residue taken up in carbon tetrachloride, from which the greater part of the rotenone was allowed to crystallize. To the filtrate from these crystals petroleum ether was added, and the precipitated resin thus obtained was dried in vacuo. This light-colored material was then subjected to molecular distillation. About half of the resin distilled at 150°C. and 0.001 mm. pressure. The distillate was freed of most of the dehydro compounds formed during distillation by dissolving in moist ether, from which these com-

* Address by Mr. Sullivan before Natl. Assn. of Insecticide & Disinfectant Mfrs., June 6, 1939, New York.

- HI-TOX 20 -

THE NEW SYNTHETIC CONCENTRATE

Before placing your next order for concentrate, investigate the many advantages of HI-TOX 20—a synthetic concentrate based on the esters of carboxylic acids.

EFFICIENT:

HI-TOX 20 has the same killing principle as pyrethrum and when diluted 1 part to 19 parts of base oil gives a finished product with a grade "A" rating. 1 part diluted with 24 parts of base oil gives a finished product with a grade "B" rating.
1 part diluted with 16 parts of base oil gives a finished product with a "AA" rating.

UNIFORM:

HI-TOX 20 is manufactured in U. S. from materials produced in U. S. Thus, the closest chemical control is maintained at all times and the buyer is assured an absolutely uniform product.

NON-TOXIC:

HI-TOX 20 is non-toxic to warm blooded animals and even a 10% solution is non-irritating. Will not spot, stain or injure any materials.

STABLE:

HI-TOX 20 does not deteriorate with age. Light and temperature have no adverse action on its toxicity. We will gladly send samples and further information. WRITE TODAY.

ASSOCIATED CHEMISTS, INC.
6243 S. ASHLAND AVE. CHICAGO, ILL.

Speed up INSECTICIDE SALES with BENETCO POR-PAILS

These practical, sturdy 5-GALLON POR-PAILS give your customers just the kind of containers in which they want to receive your *insecticides.*

Made of heavy steel, they always deliver your product in PERFECT CONDITION, and WITHOUT LEAKAGE.

The convenient POR-SPOUT is *easy to use*—and *pouring can be controlled* from a fine stream to a full flow—*no muss or waste.*

When the contents are used up, the cover can be removed, providing a HANDY UTILITY PAIL.

ADOPT THESE MODERN POR-PAILS AND WATCH YOUR SALES GO UP!

Complete information and prices sent upon request!





WILSON & BENNETT MFG. CO.

Eastern Office and Factory
353 Dunforth Ave., Jersey City, N. J.
Phones: Delaware 3-4700, Cortlandt 7-0231

GENERAL OFFICE AND FACTORY
6532 SO. MENARD AVE., CHICAGO, ILL.
PHONE: PORTSMOUTH 8100

Southern Office and Factory
Cortez and Bienville Sts., New Orleans, La.
Phone: Galvez 2171

Three Modern Factories—Sales Offices and Warehouses in Principal Cities

pounds crystallize. The ether solution was then evaporated to dryness and taken up in carbon tetrachloride. After seeding with the carbon tetrachloride solvates of both rotenone and deguelin, about 10 per cent of the resin crystallized as a mixture of these two solvates. The filtrate from these crystals was again evaporated to dryness and again distilled. The resulting material, after a small amount of dehydro compounds was removed, was called the levodeguelin concentrate. Upon racemization it gave 83 per cent of practically pure racemic deguelin, which after one crystallization from alcohol melted at 167°C. (corr.). In the Goodhue red color test[10] the levodeguelin concentrate showed 79 per cent of deguelin. In benzene the specific rotation was $[\alpha]_D^{20} = -57°$. All of the many attempts to crystallize this matrial from a number of solvents were unsuccessful.

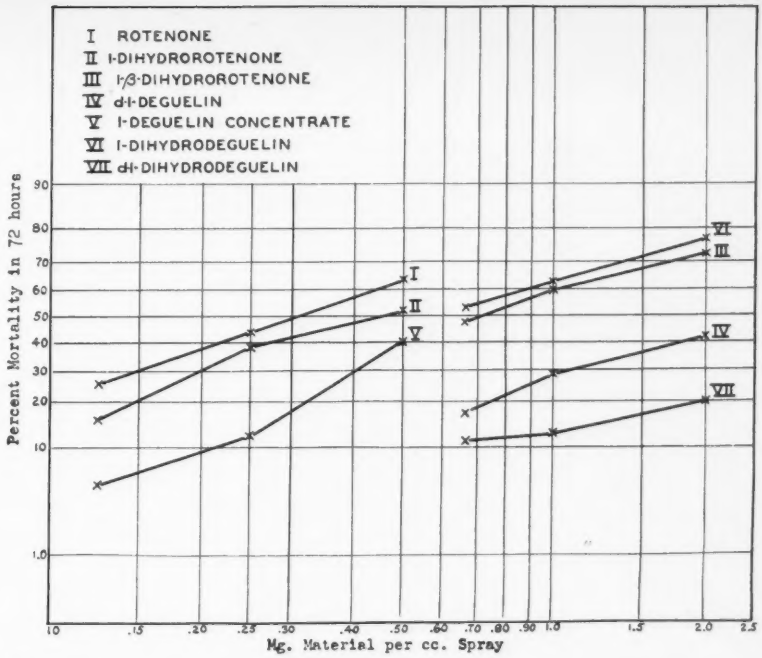


Fig. 1—Toxicity to the housefly of acetone extracts of optically active and inactive compounds of the rotenone series, including some dihydro derivatives. Six tests of about 150 flies each.

Levo-dihydrodeguelin was prepared by hydrogenation of the levodeguelin concentrate. Two grams of the concentrate in alcohol solution was allowed to absorb 120 cc. (1 molecule) of hydrogen in the presence of the Adams platinum oxide catalyst. A 50 per cent yield of levodihydrodeguelin melting at 155-6° C. was obtained. In benzene $[\alpha]_D^{20} = -103.6°$. Levo-beta-dihydrorotenone, which is the same compound chemically, was obtained from optically active rotenonic acid by ring closure[12]. This material has the same melting point, but its rotation in benezene is always slightly lower, $[\alpha]_D^{20} = -92°$, regardless of how much care is used in its preparation. For this reason toxicity tests were made on both compounds.

TABLE 1.—Toxicity to the housefly of extracts of optically active and inactive compounds of the rotenone series when applied in acetone and in kerosene-cyclohexane sprays

	Kerosene-cyclohexanone sprays[1]		Acetone Sprays	
	Concentration of material	Mortality in 72 hours[2]	Concentration of material	Mortality in 72 hours[2]
	Mg/cc.	Per cent	Mg/cc.	Per cent
Racemic deguelin	1.00	84	2.0	42
	0.50	38	1.0	29
	0.25	15	0.666	17
Racemic dihydrodeguelin	1.00	62	2.0	20
	0.50	22	1.0	12
	0.25	17	0.666	11
Levo-beta-dihydrorotenone	1.00	86	2.0	72
	0.50	47	1.0	59
	0.25	19	0.666	48
Levo-dihydrodeguelin	1.00	90	2.0	77
	0.50	48	1.0	63
	0.25	19	0.666	54
Levodeguelin concentrate	1.00	80	0.5	41
	0.50	44	0.25	12
	0.25	17	0.125	5
Levo-dihydrorotenone	0.50	65	0.5	52
	0.25	29	0.25	38
	0.125	16	0.125	16
Rotenone	0.50	80	0.5	64
	0.25	40	0.25	44
	0.125	24	0.125	26
Solvent only (checks)	0	11	0	2

[1] The 10 per cent cyclohexanone solution in kerosene was used for the most concentrated preparation of each material. Since the dilutions were made by adding kerosene alone, the cyclohexanone content was reduced to 5 and 2.5 per cent.
[2] Average of six tests of about 150 flies each.

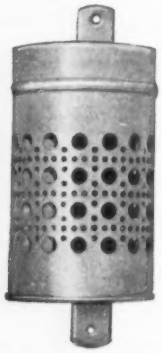
The racemic deguelin used in these tests was prepared from both derris and cube by the method described by Goodhue and Haller[11] for the analysis of deguelin. The samples of root for these preparations were chosen from material high in deguelin. The sample prepared from cube melted at 171°C. and that from derris at 170°. Neither sample showed any activity toward polarized light.

The optically active dihydrorotenone (levo-dihydrorotenone) and racemic dihydrodeguelin were prepared by hydrogenation of pure samples of rotenone and racemic deguelin. The former melted at 216° C. (high-melting form) and the latter at 174°. The rotation of the levodihydrorotenone in benzene was $[\alpha]_D^{29} = -222.2$.

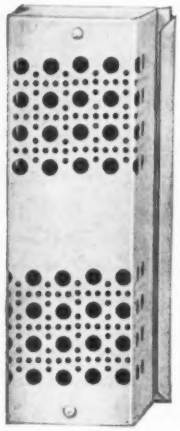
NEW!

Scientifically Designed

DEODORANT CONTAINERS



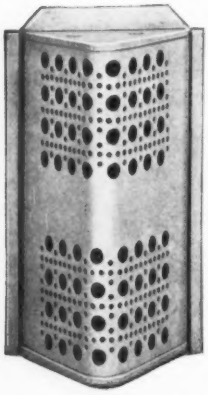
No. 1—4⅞" x 2¾"
Holds 16 oz. block
or 4—4 oz. blocks



No. 3—8" x 2½" x 2¼"
Holds 24 oz. oblong
blocks



No. 2—8¾" x 3-3/16"
Holds 32 oz. block
or 8—4 oz. blocks



No. 4—7" x 4" x 3⅞"
Holds 16 oz. triangle
block

Attractive perforation—extra strong brackets. Made from 28 gauge metal—white coated inside and outside.

Write for prices and further details

NATIONAL SANITARY CHEMICAL CO.

Stump and Conway Sts. Baltimore, Md.

'Manufacturers Exclusively for the Jobber'

THE MAC-LAC COMPANY

INCORPORATED

127 Maiden Lane New York, N. Y.

Manufacturers for More Than 50 Years

SUPERIOR QUALITY

DEWAXED ORANGE SHELLAC

DEVELOPED ESPECIALLY FOR USE IN NO RUBBING WAXES

- *Costs Less*
- *Dissolves Readily*
- *Low in Acid*
- *Gives Beautiful Film*

WE ALSO OFFER:

DEWAXED WHITE REFINED SHELLAC

DEWAXED LIGHT ORANGE REFINED SHELLAC

Samples Upon Request

TRY THESE WITHOUT OBLIGATION AND CONVINCE YOURSELF

THE MAC-LAC COMPANY

INCORPORATED

FACTORY: RAHWAY, N. J.

The rotenone, melting point 163°C., was prepared from cube and purified by crystallization from carbon tetrachloride as the solvate and from alcohol as the solvent-free compound.

Procedure

The toxicity tests were made on the housefly by the method of Campbell and Sullivan[4]. The compounds were applied both in acetone and in a mixture of a highly refined kerosene and cyclohexanone (90:10). The more dilute acetone sprays were prepared by adding acetone to the original solution, and the more dilute kerosene - cyclohexanone sprays by adding refined kerosene. Six tests with about 150 flies each were made on each concentration of the various materials.

Results

The mortality data are given in table 1 and figures 1 and 2[1].

Of the acetone sprays, that containing rotenone was the most toxic. The optically active substances, levo - dihydrorotenone, levodeguelin concentrate, levo - dihydrodeguelin, and levo-beta-dihydrorotenone, were somewhat less toxic than rotenone. However, racemic deguelin and dihydrodeguelin were markedly less toxic than the corresponding levo forms. Also, the dihydro derivatives of rotenone and deguelin were less toxic than the parent compounds.

Of the kerosene-cyclohexanone sprays, the rotenone spray was again the most toxic. Closely grouped together and lower in toxicity were levo - dihydroguelin, levo - beta - dihydrorotenone, levodeguelin concentrate, and racemic deguelin. The dihydro derivatives of rotenone and deguelin were again less toxic than the parent compounds.

It will be seen that the acetone and kerosene-cyclohexanone solvents gave similar results with but one important exception. Levodeguelin concentrate and levo - dihydrodeguelin were markedly more toxic than the racemic forms when acetone was the solvent, but they were of about the same toxicity when kerosene-cyclohexanone was the solvent.

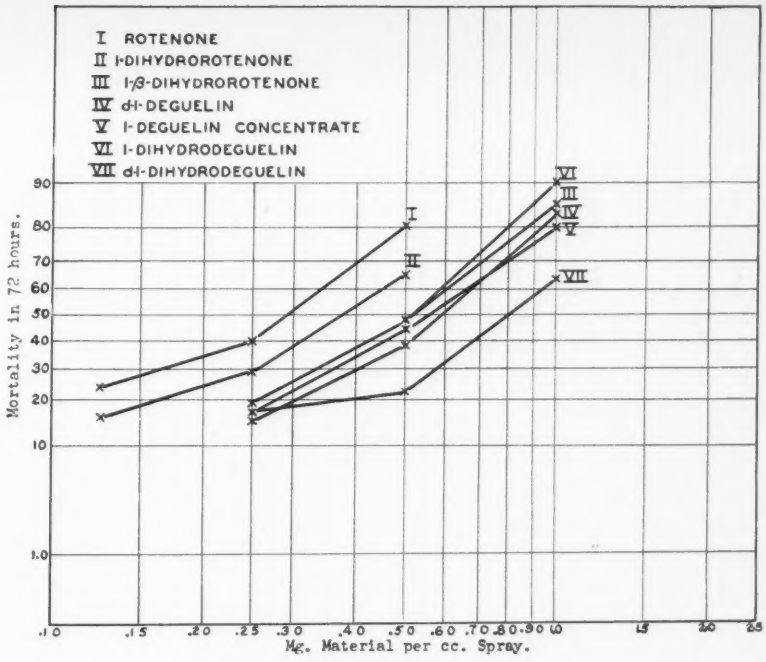


Fig. 2—Toxicity to the housefly of kerosene-cyclohexanone extracts of optically active and inactive compounds of the rotenone series, including some dihydro derivatives. Six tests of about 150 flies each.

The relative toxicity of these compounds when judged by that concentration necessary for 50 per cent mortality is shown in table 2. The toxicity of the optically active compounds in this series as compared with that of the optically inactive (racemic) compounds when tested in acetone substantiates the results of Fink and Haller[9].

Discussion

To explain the great change in toxicity of the optically inactive compounds upon change of solvent, several factors might be considered. One is the great difference in the evaporation rate of the solvents. Acetone evaporates so rapidly that the effect is practically that of dusting the insects. In kerosene the material is retained in solution much longer, and this fact, together with the better contact obained by this liquid, may account for the higher toxicity.

Because of the rapid evaporation of acetone and the formation of finely divided solid material, a difference in physical state between the optically active and the racemic compounds may be expected. The tendency for the racemic forms to crystallize may produce larger particles, while the optically active forms may be deposited as finely divided amorphous powders. Levo-dihydrorotenone, however, crystallizes very readily; yet this property does not reduce its toxicity.

TABLE 2.—Concentrations of materials estimated to cause 50 per cent mortality to houseflies

Material used	Concentration giving 50 per cent mortality	
	In acetone spray	In kerosene-cyclohexanone spray
	Mg. per cc.	Mg. per cc.
Rotenone	0.30	0.30
Levo-dihydrorotenone .	.43	.38
Levo-beta-dihydrorotenone .	.71	.52
Racemic deguelin .	2.80	.59
Levodeguelin concentrate	.60	.57
Levo-dihydrodeguelin .	.57	.51
Racemic dihydrodeguelin	>2.0[1]	.83

[1] By extrapolation the concentration causing 50 per cent mortality is greater than 10 mg. per cc.

[1] The writers are indebted to F. M. Wadley, of this Bureau, for suggesting this mode of presentation.

AUTOMATIC EMULSIFYING DEGREASING SOLVENT

"DUNK 'EM IN GUNK"


Patented Feb. 8, 1938

2,107,288

UNITED STATES PATENT OFFICE

LIQUID COMPOSITION FOR DEGREASING SURFACES AND PROCESS OF PREPARATION

Alton F. Curran, Malden, Mass., assignor to The Curran Corporation, Malden, Mass., a corporation of Massachusetts

No Drawing. Application January 11, 1936 Serial No. 58,752

9 Claims. (Cl. 87—)

A unique and valuable safety solvent especially adapted for use as a general purpose garage and chassis degreaser by large car dealers, fleet, truck and bus operators as well as garages. High boiling and non-fire hazardous.



Safe

FOR USE ON PAINT

DEGREASES MOTOR BLOCKS, TRUCK CHASSIS, AIRPLANES, RAILROADS, TANK WAGONS, CEMENT FLOORS, ELEVATOR WALLS, BOATS, BILGES, ETC.

Distributed *100%* Through Jobbers

We wish to contact old line chemical and specialty jobbers of high standing. Factory trained demonstrators available for work with jobbers salesmen.

No Samples Please!

Trial gallon cans to bona fide wholesalers at drum prices.

THE CURRAN CORP., MFG. CHEMISTS, MALDEN, MASS., MONTREAL, P.Q.



GIVE 'EM THE WORKS!





MOTORMATIC Electric SPRAYER

Designed for thorough pest annihilation . . . and at a saving of time, labor and money. Requires no preliminary preparations. Does not waste a drop of fluid. Gives Insecticide finest possible diffusion and longest possible floating suspension Automatic shut-off. Operates simply and easily on any current. Heavy duty durable construction.

Write Today for Complete Details, Prices and Descriptive Literature.

STEAMASTER EXTERMINATOR

With steam serving both as an ingredient and as a force, the insecticide itself is held in moist suspension and the attack is made at full strength . . . thus guaranteeing a 100% thorough job of pest extermination. Completely enclosed heating element. Operates from any electric outlet. No fire hazard. Current shuts off automatically when water level drops below the level of the heating element.

DULA MFG CO., INC. 351 Atlantic Ave., Brooklyn, N. Y.

Manufacturers to the Wholesale Trade Only

Still another factor, that of association, must be considered. Many racemic compounds are formed by the loose combination of one molecule of the dextro with 1 molecule of the levo form. In the associated state this molecule may be too large to have a toxic effect, or the combination of the dextro and levo forms may actually alter the structure enough to change the toxicity. This association may take place in acetone and not in kerosene-cyclohexanone mixtures.

The higher percentages of cyclohexanone in the kerosene-cyclohexanone sprays of the higher concentrations may account for a small part of the increase in mortality, since the kerosene - cyclohexanone check, which contained the maximum amount (10 per cent) of cyclohexanone used, gave 11 per cent mortality.

Regardless of the cause of the difference, these results again bring out the importance of the method of testing insecticides. In order that any good insecticidal possibility may not be overlooked, a number of methods and variations of the same method should be used. It is quite possible that strict adherence to an established method has allowed some good materials to go unnoticed.

Summary

Rotenone, levo - dihydrorotenone, levo - beta - dihydrorotenone, levo - dihydrodeguelin, levodeguelin concentrate, racemic deguelin, and racemic dihydrodeguelin have been tested against the housefly (*Musca domestica* L.). In acetone solution the two optically inactive (racemic) compounds are much less toxic than are the optically active ones, but when tested in highly refined kerosene containing cyclohexanone the toxicity of the racemic compounds is approximately the same or only slightly less than the optically active compounds. A concentrate containing more than 80 per cent of levodeguelin has been prepared.

Literature Cited

[1]Buckley, T. A. 1936. The toxic constituents of derris root. Jour. Soc. Chem. Ind. 55:285T-291T.

[2]Cahn, R. S., and Boam, J. J. 1935. The constituents of derris resin. Jour. Soc. Chem. Ind. 54-42T-45T.

[3]Cahn, R. S., Phipers, R. F., and Boam, J. J. 1938. The total composition of derris extract. Jour. Soc. Chem. Ind. 57:200-209.

[4]Campbell, F. L., and Sullivan, W. N. 1938. Testing fly sprays. A metal turntable method for comparative tests of liquid spray contact insecticides. Soap 14 (6):119-125, 149.

[5]Clark, E. P. 1930. Toxicarol. A constituent of the South American fish poison *Cracca (Tephrosia) toxicaria*. Jour. Amer. Chem. Soc. 52: 2461-2471.

[6]Clark, E. P. 1931 Deguelin I. The preparation, purification and properties of deguelin, a constituent of certain tropical fish-poisoning plants. Jour. Amer. Chem. Soc. 52: 313-317.

[7]Clark, E. P. 1931. Tephrosin I. The composition of tephrosin and its relation to deguelin. Jour. Amer. Chem. Soc. 53:729-732.

[8]Davidson, W. M. 1930. The relative value as contact insecticides of some constituents of derris. Jour. Econ. Ent. 23:877-879.

[9]Fink, D. E., and Haller, H. L. 1936. Relative toxicity of some optically active and inactive rotenone derivatives to culicine mosquito larvae. Jour. Econ. Ent. 29-594-597

[10]Goodhue, L. D. 1936. An improvement on the Gross and Smith colorimetric method for the determination of rotenone and deguelin. Jour. Assoc. Offi. Agr. Chem. 19:118-120.

[11]Goodhue, L. D., and Haller, H. L. 1939. A method for the determination of deguelin in derris and cube. Ind. Eng. Chem., Anal. Ed. (in press).

[12]Haller, H. L. 1931. Rotenone XI. The relation between isorotenone and rotenone. Jour. Amer. Chem. Soc. 53:733-737.

[13]Haller, H. L. and LaForge, F. B. 1934. Rotenone XXX. The noncrystalline constituents of derris root. Jour. Amer. Chem. Soc. 56:2415-2419.

[14]Harper, S. H. 1939. The precursor of Buckley's compound. Chem. & Ind. 58:292.

[15]Hartzell, A., and Wilcoxon, F. 1936. Relative toxicity of pyrethrins I and II to insects. Contrib. Boyce Thompson Inst. 8:183-188.

[16]Martin, J. T., and Tattersfield, F. 1936. The problem of the evaluation of rotenone-containing plants. II. *Derris elliptica, Derris malaccensis* and the "Sumatra-type" roots. Ann. Appl. Biol. 23:880-898.

[17]Meyer, Th. M., and Koolhaas, D. R. 1939. New constituents of derris root. I. Rec. Nederland. Chem. Ver. 58:207-217.

[18]Tattersfield, F., and Martin, J. T. 1938. The problem of the evaluation of rotenone-containing plants. IV. The toxicity to *Aphis rumicis* of certain products isolated from derris root. Ann. Appl. Biol. 25:411-429.

Label Claims

(*From Page* 105)

pest control in California. Material must be poisonous to control insect life even if that material when used as directed is not particularly poisonous to warm blooded animals. Users are accustomed to hazards of these and the emphasis must be on effectiveness. In California, if an economic poison is sufficiently dangerous to humans, it is required to be distinctly labeled POISON, to bear the skull and crossbones, to give the common name of the poison, the acceptable antidote, and the name and address of the manufacturer. If a material is not of sufficient toxicity to require such warning, no further mention of the poisonousness of the material is warranted.

California law authorizes the department to make rules and regulations for clarification of the law. Many of these are for the best interest of the manufacturer, either for his direct protection or in preventing unfair competition, as, for example, the label shall warn of any hazard. The division would question the registration of any material if it were known not to meet the requirements of the Bureau of Explosives of the U. S. Department of Commerce, or any health or similar regulations. It should not be overlooked that whenever registrants adequately regulate themselves, the tendency for legislatures to do so is minimized, and that it is expensive for a registrant to appear in court to face disgruntled purchasers who charge him with selling a mislabeled economic poison.

The phrase, "Active ingredients 100 per cent," if true, is the approved form of statement that is acceptable to this office. In a statement of composition on a label it is preferred that the percentage be given after the name of the ingredient. We do not permit "100 per cent active" or "100 per cent active ingredients." The phrase, "100 per cent active ingredients" ambiguously refers to the activity or effectiveness of ingredients rather than to the relative amount

CRESYLIC ACID — FORMALDEHYDE

AROMATICS

Phenyl Ethyl Alcohol	Phenyl Ethyl Acetate
Methyl Acetophenone	Amyl Cinnamic Aldehyde
Acetophenone	Benzyl Acetate
Geranyl Acetate	Benzophenone
Yara Yara	Nerolin

For Soaps, Perfumes, Cosmetics, etc.

ASSOCIATED COMPANIES

KAY-FRIES CHEMICALS, INC. NEW YORK, N. Y.

CHARLES TENNANT & CO. (CANADA) LTD. TORONTO, CANADA

AMERICAN-BRITISH
CHEMICAL SUPPLIES, Inc.
180 MADISON AVE., NEW YORK

PINE OIL PRODUCTS

?

Do you have your copy of the

"PROFIT GUIDE"

Chemical Supply Company's *NEW*

PRICE LIST and CATALOG

Be sure to keep this "BIBLE" handy. It's chuck full of interesting products and prices. Write for your copy today.

THE CHEMICAL SUPPLY COMPANY

2450 Canal Road, Cleveland, Ohio

PINE OIL DISINFECTANTS

PINE COMPOUND — PINE ODOR DEODORANT

PINOLAVE—*"Magic Cleaner"*

PINE SCRUB SOAP — PINE CLEANSER

PINE NEEDLE ODOR PERFUMED SPRAY

PINE CATTLE SPRAY

SAMPLES AND INFORMATION GLADLY SENT

THE CHEMICAL SUPPLY CO.

2450 CANAL RD.
CLEVELAND
OHIO

of them in the material. If, in lieu of stating the name followed by the percentage of each and every active ingredient, and the total inert ingredients followed by the percentage thereof, the registrant chooses to state the name followed by the percentage of each inert ingredient, it is satisfactory to state, for example, "Inert ingredient, water not over 10 per cent." The statement, "Inert water" is not satisfactory for it seems to imply that there may be water as an active ingredient.

California law provides the device of compulsory registration of economic poisons as the central enforcement technique, and sale or delivery is unlawful of those that cannot or are not registered and properly labeled, or of any material represented to be an economic poison. Provision is made by which registration may be refused or cancelled for a material of little value, detrimental to vegetation, except weeds, to domestic animals or to public health and safety when properly used, and the division may require such practical demonstration as may be necessary to determine its merit and eligibility, as well as concerning which false or misleading statements are made or implied by the registrant or his agent. Registration of the firm, as well as that of the material, may be cancelled for repeated violations of Article 3, Economic Poisons, Chapter 7, Division V, of the Agricultural Code of California.

—— ♦ ——

Insecticidal Soap

Insecticidal soap contains coal-tar oils free from naphthalene, boiling at 160-310°C., and containing not over 1.5 per cent of phenols and 0.2 per cent of pyridine bases. S. G. Sirotkin. Russian Patent No. 46,320.

—— ♦ ——

Ink Spot Remover

An aqueous alkali sulfite solution is mixed with a polycarboxylic acid such as citric acid and stannous chloride and an alcohol added as stabilizers. K. J. Kuiper. Dutch Patent No. 44,610.

Automobile Polish Abrasives

Abrasives for automobile polish are generally white or light colored, although colored materials have advantages for specific purposes. A universal type of polish requires an abrasive of the former type. A brief list of abrasives follows:

Rottenstone is mainly silica having a high aluminum oxide content.

Tripoli is a special variety of hydrated silica.

Pumice is an igneous rock product, mainly silica, with high aluminum oxide content. It is largely used in coarser powders but can be secured as a flour.

Emery is a mineral, obtainable in various degrees of coarseness, including flour. It is impure corundum (aluminum oxide), the content of which determines the cutting properties.

Calcium carbonate is Vienna lime and Sheffield lime from the calcination of natural chalks, and precipitated chalk.

Rouge and crocus are red oxides of iron in various grades.

Green chromium oxide was at one time used in polishing compositions for chromium plate.

Silica in the form of silica flour, quartz flour or natural siliceous earths such as kieselguhr, is very extensively used.

Natural clays such as China clay, Fuller's earth and floridan earth are inexpensive and useful. The properties depend on origin and grain size.

Aluminum oxide. A large range of types and degrees of fineness are used. Roasted bauxite, ground or precipitated alumina, hydrated or roasted, are all employed.

Magnesium silicate in the form of talc or French chalk is used.

Manganese dioxide, gypsum and zinc oxide sometimes serve as abrasives.

Special abrasive characteristics are obtained by a combination of three factors,—choice of material, its particle size, and blending with non-abrasive. The silicas and aluminas can provide a wide range of abrasive action for the same particle size, according to origin and mode of preparation. These provide a large proportion of the commercial requirements. Pumice and emery have high abrasive value: tripoli and rottenstone occupy an intermediate position, while the limes, clays and talcs are more useful as fillers than as actual abrasives. *Industrial Chemist* **15**, 46-7 (1939).

—— ♦ ——

Rotenone in Derris

The Goodhue method of determining rotenone and deguelin in derris is based on the development of a bluish red color by means of certain reagents. The Goodhue value of Derris extract depends fairly closely on the "pure" rotenone content, but the correlation is more accurate when "crude" rotenone contents are used. Nevertheless the Goodhue value can be used to determine approximately the "pure" rotenone contents. Extracts containing only a small amount of rotenone give abnormally low Goodhue values and their presence in blends can thus be detected. R. S. Cahn and J. J. Boam. *J. Soc. Chem. Ind.* **58**, 194-6 (1939).

—— ♦ ——

Preparation of Lysol

By the addition of 4 per cent of industrial alcohol to the British Pharmacopoeia formula for Lysol, the initial saponification may be carried out homogeneously, the process being complete in less than 20 minutes. Liquor Cresolis Saponatus B.P.C. 1907 contained 4 per cent of alcohol, which was added to the heated linseed oil and aqueous caustic potash, but as the amounts of these were almost double those in the present preparation, it is found to be insufficient to produce the apparent miscibility obtained above, and hence to expedite the process to the same extent. When large batches are being made no external source of heat is required. J. Jackson. *Quart. J. Pharm. Pharmacol.* **11**, 538-42; through Chem. Abs.

SELL MORE INSECTICIDES

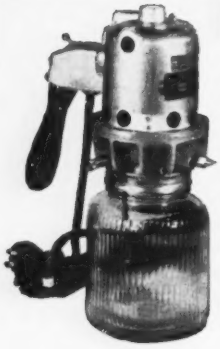
with

BREUER TORNADO ELECTRIC SPRAYER

Easier Sales—More Repeat Orders

New! Model 53G

Lowest Priced TORNADO Ever Offered



A new high quality compressor-type electric sprayer, selling at a sensationally low price, to help you reach the small users who could never before afford a really good sprayer. Ideal for groceries, restaurants, meat markets, taverns, hotels, rooming houses, etc. G. E. motor, genuine rotary compressor, stationary nozzle, wood pistol grip handle, 25 oz. glass container.

AUTOMATIC MODEL 54

One quart capacity. Set the automatic time switch at any point from 1 to 30 minutes — sprays desired quantity without further attention —automatically shuts off. Can also be used as a hand spray. Adjustable nozzle sprays in any position. Exclusive volume control regulates density of spray.



POPULAR MODEL 53



Our finest compressor-type electric hand sprayer. ⅛ H.P. G. E. Motor, genuine rotary compressor, adjustable nozzle for spraying in any position, exclusive volume control. Beautifully finished castings, one quart container. A compressor-type sprayer of the finest quality at moderate price.

ALSO

TORNADO Model 36 with automatic time switch, one gallon capacity
TORNADO Model 6 for mill spraying and moth proofing solutions
TORNADO Models 50 and 51 Fan Type units for crawling insects.

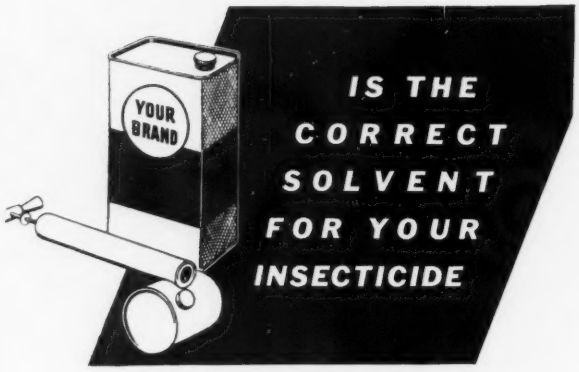
Write Today for Complete Information

Breuer Electric Mfg. Co.

5118 N. RAVENSWOOD AVE. CHICAGO, ILLINOIS

We do not sell insecticides. Our business is manufacturing Sprayers. Patented in U. S. A. and Foreign Countries.

INSECTI-SOL



- **STAYS ODORLESS**
- **100% VOLATILE**
- **KILLS QUICKER**

Just three of the many reasons why you should make INSECTI-SOL the standard solvent for your insecticide requirements.

Alert manufacturers, who have already taken full advantage of the superior quality INSECTI-SOL, show their approval with constant repeat orders. *Because* it will not stain, the finest homes, hotels and restaurants are demanding it. *Because* it readily blends with any perfume, the most discriminating users must have it. And *because* it greatly exceeds NAIDM specifications, disinfectant manufacturers specify it in ever increasing quantities.

Write for literature describing this remarkable solvent.

PENNSYLVANIA REFINING CO.

General Offices: BUTLER, PA.

REFINERIES AT
Titusville, Pa. and Karns City, Pa.

WAREHOUSE STOCKS MAINTAINED IN:
New York, Chicago, Detroit, Los Angeles, St. Louis, Atlanta, Boston, Scranton and Cleveland

penn drake
petroleum products

PENN-DRAKE PRODUCTS
U. S. P. White Oils and Technical Oils... Petrolatums... INSECTI-SOL ...Waxes... Naphthas ... Rubber Solvents Motor oils and greases ... High flash lubricants... Industrial lubricants and greases

News.....

Organize So-Swif Products

So-Swif Products Co., Memphis, has been organized as a division of Standard Disinfectant Co. to manufacture fly sprays, no-rubbing wax, toilet bowl cleaner and other household specialties. Charles R. Fulton, who organized the Penn Champ Laboratories of Butler, Pa., is sales manager. The company plans to employ about forty salesmen who will cover the South and Western territories, merchandising the products through wholesale paper goods and grocery jobbers.

Insecticides Picked-Up

Recent reports state that insecticides have been picked-up and suspended from sale in the states of Alabama and Maine. The reason given in both cases was that the products were not registered under the state's insecticide laws. Increased activity in these states indicates that these laws are being more rigidly enforced.

Ayrault Joins Federal

John F. Ayrault, Jr., has been appointed general superintendent and works manager of the Federal Varnish Co., Chicago, with A. Bohnert as his assistant. He has been connected with the varnish making industry since 1918. Henry Drake has been appointed laboratory chief in charge of research with the same company.

Carter on Coast Trip

Harry Carter, president, Carter Sanitary Supply Co., Inc., Cincinnati, recently left on a three-month motoring tour to the west coast.

Clarkson Co. Reorganized

Clarkson Chemical & Supply Co., Williamsport, Pa., has been reorganized following the recent death of W. H. Clarkson, its president and founder. J. H. Bender, who has been associated with the company since 1921 and has acted as secretary-treasurer since 1925, was elected to



J. H. Bender

the presidency of the concern. The vacancy on the board was filled by Brig.-Gen. C. Blaine Smathers, and A. H. Hollenback, who has been with the company for four years in sales promotion work, was elected to serve as secretary and manager of sales.

Sign B-K Stipulation

General Laboratories Division of Pennsylvania Salt Manufacturing Co., Philadelphia, have signed stipulations set forth by the Federal Trade Commission to make their advertising and representation in the sale of their products comply with the provisions of the Wheeler-Lea Act. The company will so word their statements hereafter so that they will not imply that "B-K," a hypochlorite, kills "all" germs, that it is "safe" under all conditions or acts as a general disease preventative, and that the word "sterilizer" will be used only in the manner of its present interpretation by the Food and Drug Administration.

Continue Grasshopper Fund

The campaign against grasshopper infestations has been continued at full speed, according to the U. S. Department of Agriculture, as a result of an additional $1,750,000 appropriation for that purpose by Congress. 180,000 tons of poison bait have already been sent to those states facing heavy crop losses from grasshoppers, and it is estimated that an equal amount will be used before the Summer is over.

Stage Bug-a-boo Display

Socony-Vacuum Oil Co., New York, manufacturer of "Bub-a-boo" liquid insecticide, is operating an insecticide sales display at the store of John Wanamaker, Inc., New York, which includes demonstrations with a modified Peet-Grady chamber in killing flies. The display is in charge of an entomologist who explains the features and use of the insecticide as he demonstrates it. Socony-Vacuum is expanding its line in the sanitary chemical specialty field, having recently added several floor maintenance products to its insecticide, disinfectant, cleaner and polish group.





If you manufacture products containing alcohol

Write us about

TONKAIRE

A new synthetic specialty which eliminates the sharp odor of alcohol

We shall be pleased to forward a sample and full information

COMPAGNIE PARENTO, Inc.
Croton-on-Hudson New York

F. & S.

Quality Colors *for*

TOILET SOAPS
LIQUID SOAPS

TOILET PREPARATIONS

Long experience enables us to produce colors for all types of soaps.

If you have a shade you want matched send us a sample. We have complete facilities for matching.

Liquid soap colors a specialty—send for samples of F. & S. greens and ambers.

FEZANDIE & SPERRLE, Inc.
205 FULTON STREET
NEW YORK, N Y.
Import—Manufacture—Export

U. S. Pyrethrum Imports Drop; High Prices Traced to Speculation

IMPORTS of pyrethrum into United States during the first five months of 1939 showed a drop of approximately 28 per cent in volume from 1938 figures, according to the U. S. Dept. of Commerce. The total for the January to May period this year is 5,032,780 lbs., as against 7,018,568 lbs. in the corresponding period of 1938. In spite of the sharp drop in poundage, the value of imports increased, indicating a sharply higher price per pound on U. S. receipts. Comparative figures are $1,089,551 for imports this year, as compared with $1,053,416 for the first five months of 1938.

This is a continuation of the same movement which characterized the import picture all through 1938, —rising prices and lower poundage of imports. For the full year, 1938, imports aggregated 14,254,144 lbs., valued at $2,485,820 as compared with 20,091,596 lbs. in 1937, worth $2,204,451.

Some light on the situation is contained in a recent dispatch from Herbert Leopold, Tokyo correspondent. He says that "higher production cost and declining crops, both of which are due to the current shortage of agricultural labor, account only for a fraction of the higher cost of pyrethrum, while the remainder is clearly traceable to speculation on the part of Japanese operators.

"Most important commodities have been placed under strict government control since the outbreak of the Sino-Japanese hostilities two years ago, and speculators have turned to the few items in which free market transactions are still possible and profitable. These speculative activities have been spurred by the view that the government will sooner or later come out with similar control measures against transactions on the native produce market.

"A further rise in quotation," he indicates, "cannot possibly increase Japan's net income from pyrethrum exports, but will merely engender the permanent loss of important consumer groups. Government control over pyrethrum transactions and the establishment of an official price ceiling are considered inevitable if the coming crop fails to ease the market. As soon as the trade has been deprived of its speculative element and stocks held by outside operators are released, quotations may again return to a level consistent with actual production cost."

—— ♦ ——

Visit S. B. Penick Plant

Following the close of the recent N.A.I. & D.M. Convention, a number of insecticide manufacturers accepted an invitation to visit the S. B. Penick & Co. crude drug warehouse at Jersey City and the pyrethrum extract plant at Lyndhurst, N. J. At the end of the morning trip, the party returned to the Hotel Biltmore for luncheon.

—— ♦ ——

Frances M. Suarez Honored

Frances M. Suarez, advertising manager of Philadelphia Quartz Co., Philadelphia, manufacturers of silicates of soda, has received a certificate of honorable mention in the Josephine Snapp National Competition open to advertising women all over the country. The entry consisted of a written exposition of Miss Suarez' work in 1938 together with an exhibit.

John Powell & Co., New York, held the annual sales meeting of the company at the Hotel Vanderbilt, New York, on June 1. Sales representatives from various parts of the country attended.



NAPHTHENIC ACIDS

● CRUDE, SEMI-REFINED AND FULLY REFINED GRADES AVAILABLE IN VARIOUS ACID NUMBER RANGES

GENERAL PETROLEUM CORPORATION
of California

108 WEST SECOND STREET — LOS ANGELES, CALIFORNIA

Valencia Pumice

Reg. U.S. Pat. Off.

Is THE PUMICE for

Powder
Paste
Bar

Mechanic type soap where an abrasive is desired.

Write for samples and 12 page booklet of information

BARNSDALL TRIPOLI CORPORATION
PUMICE DIVISION
(Subsidiary Barnsdall Oil Co).
SENECA, MISSOURI, U. S. A.

For PRODUCING
GOOD SOAP *and* SANITARY CHEMICALS
rely on

HOOKER CHEMICALS

PARADI (reg. trade mark)—Accurately sized, clean, clear, free-flowing Para Dichlor Benzene.

CYCLO HEXANOL and METHYL CYCLO HEXANOL (technical grade) for use in liquid soaps.

CAUSTIC SODA—Special grades for soap, etc.

Write for complete list of Hooker heavy chemicals and synthetic organic chemicals.

HOOKER ELECTROCHEMICAL COMPANY
Eastern Sales Offices: Lincoln Bldg., New York City. Works, Niagara Falls, N. Y.
Western Sales Offices: Tacoma, Wash. Works, Tacoma, Wash.

9137

SOAP DIES and MOULDS

—for—
TOILET SOAPS
LAUNDRY SOAPS AND
BATH TABLET
STAMPING

For Foot and Power Presses

Established 1894

ANTHONY J. FRIES & SON CO.

717 Sycamore Street — Cincinnati, O., U. S. A.

World Insecticide Review

A World Economic Review of Insecticides and Allied Products has recently been issued by O. W. Roskill & Co. Reports. Ltd., London. The report is a 150-page mineographed compilation of insecticide production and consumption figures for all types of materials and from all parts of the world. It goes into increasing world consumption of insecticides as a result of expansion in insect pest damage, higher standards of living, and stricter public health regulations. It discusses, and gives the statistics covering competition between the various types of insecticide materials, and the variations in their consumption trend in the different world markets. The price of the report is £5 ($25). Roskill are marketing and report engineers located at 46 Catherine Place, Buckingham Gate, London.

Shoe Polish Stipulation

Griffin Manufacturing Co., Brooklyn, has signed a stipulation with the Federal Trade Commission to discontinue misleading representations in the sale of "Griffin A B C Wax Polish" and "Griffin A B C Liquid Wax Polish" and a white shoe dressing, "Griffin Allwhite." The company had been representing that its wax polishes are waterproof under all conditions of use, and that they give brighter and longer lasting shines than any other brand. It had also been represented that "Griffin Allwhite" removes or eliminates all grease spots and grass stains.

Sayers & Co. Move

Sayers & Co., janitors supplies, Philadelphia, have recently moved to other quarters at 4946 Cedar Avenue.

Cuprous Oxide Bulletin

The Crop Protection Institute, Washington, D. C., has just issued a bulletin under the title, "Relation of Particle Size and Color to Fungicidal and Protective Value of Cuprous Oxide." The authors are John W. Heuberger and James G. Horsfall. The work on which the bulletin is based was carried on at the Geneva, New York, Agricultural Experiment Station with funds supplied by Rohm & Haas Co.

Anchor Hocking Counsel

Anchor Hocking Glass Corp., Lancaster, O., has recently appointed United States Advertising Corp., Toledo, as advertising and publicity counsel.

Innis, Speiden Exhibit

Innis, Speiden & Co., New York, are exhibiting their product "Larvacide" at the New York World's Fair. Known previously as a mill and industrial fumigant, it is being introduced for the first time as a soil fumigant. The company's display contains photographs which represent scenes from a bulb field, golf course, celery farm and florist greenhouse, illustrating the general use of the product in soil. Other photographs, with lights behind them, show the appearance of plants and roots in treated and untreated soil. The exhibit is Booth 75 in "Gardens on Display."

Pyrethrum Acreage Decreased

The total acreage devoted to the production of pyrethrum flowers in Japan during 1939 approximates 55,600 as compared with 61,411 so employed in 1938, according to estimates made at the recent Annual Conference of Combined Insect Flowers Merchants' Association. Stocks on hand on March 31, 1939, were 2,111 tons according to figures released at the Conference.

Evans Made Sales Manager

Norman A. Evans has recently been appointed sales manager of Pressed Steel Tank Co., Milwaukee. He has been a member of the company's sales force since 1931, spending part of that time in New York, where he was charged with the responsibility for the entire Eastern territory. He will make his headquarters at the company's home office in Milwaukee.

Insecticide Mfgr. Moves

Shulman Chemical Co., insecticides, Philadelphia, has moved to larger quarters at 6709 N. 6th Street.



DISINFECTANTS
PINE OIL COAL TAR CRESOL COMPOUNDS

SOAPS
LIQUID POTASH OIL
CLEAR BASE POWDERED
ALCOHOL (U.S.P.)

FLOOR WAXES
CLEANERS
SCRUBS
SOAP —— POWDERS

PECK'S PRODUCTS COMPANY

KANSAS CITY ST. LOUIS, MO. NEW YORK

TETRA SODIUM PYRO PHOSPHATE

Crystalline-Anhydrous

Alkalies
Paradichlor benzene
Carbon Tetrachloride
Tri Sodium Phosphate

•

We are in a favorable position to work with you on your requirements for these and other chemicals used in the manufacture of soaps, detergents and sanitary products. Why not check with us?

•

JOHN A. CHEW, INC.
60 East 42nd Street New York
Phone: MUrray Hill 2-0993

Build Up Customer Confidence
BY RECOMMENDING

DAN-DEE
NO-RUBBING
FLOOR WAX



SPECIALLY PRICED FOR THE JOBBING TRADE
PRIVATE LABELS SUPPLIED

- Made for HEAVY DUTY usage . . . quick drying, waterproof and excellent coverage qualities.
- Especially recommended for gymnasiums, institutions, schools, etc., where floor maintenance costs must be carefully watched.
- Full details, generous samples available upon request.
- The original Dan-Dee has the bridge on the label.

MANUFACTURED BY
TWIN CITY SHELLAC CO., Inc.
340 FLUSHING AVENUE BROOKLYN, N. Y.



HOCKWALD'S DISPENSERS

No. 1 Wall Type **No. 2 Basin Type**

All parts replaceable including glass globes. Can be disassembled in two minutes without mechanical skill, yet when in operation it is securely locked together. No cement or plastics used in any part of the machine.

WRITE FOR DESCRIPTIVE LITERATURE AND PRICES

Hockwald Chemical Company
135 Mississippi Street
San Francisco, Cal.

LARGEST PACIFIC COAST MFR. OF POTASH SOAPS AND SANITARY PRODUCTS

California State Chem. Division Issues Annual Report for 1938

THE annual report for the year 1938 of the division of chemistry, California State Department of Agriculture, has just been issued by Dr. Alvin J. Cox, chief of the division. He reports that during the fiscal year 1937-38, 445 registrants each paid a $50 fee for an economic poisons certificate of registration as compared with 414 during 1936-37. In addition there were 103 who paid a $10 fee for an economic poisons restricted certificate of registration as compared with 108 in the previous fiscal year. Furthermore, $2 were collected for each of approximately 600 additional economic poisons.

"Consistent enforcement of good laws and regulations," says Dr. Cox, "is in many ways an aid to legitimate business. Unreliable merchandise soon not only destroys its own market, but injures that of properly labeled, reliable products. . . . The division is doing its best to maintain a consistent point of view in dealing with a very large number of related but dissimilar products. . . . The division desires to permit the greatest latitude in honest labeling and advertising except where this will start a battle of competitive phrases. It is the intent in administering the agricultural chemicals law not only to protect the user, but to protect the reputable manufactuer against his unethical competitor.

"Extravagant labeling and advertising is a type of misrepresentation. It is a violation of Section 1064 of the Agricultural Code when the package or label of an economic poison bears any false or misleading statement, design, or device regarding such article or the ingredients or substances contained therein, or it is labeled or branded so as to deceive or mislead the purchaser. 'Superior,' 'Selected,' 'Improved,' 'Contains more,' 'Will keep indefinitely,' 'The best in the business,' and similar words, are vague and intangible terms not eligible for general use in connection with an economic poison. Intangible terms are as objectionable as those that are too broad. . . . To permit vague terms is simply to make the consumer the victim of the loudest sales talk. Terms must be definite."

In another section of the report, Dr. Cox calls attention to the fact that economic poisons frequently are unjustly accused of being responsible for damage of various kinds. Sheeps' stomachs received to be analyzed for arsenic, he says, showed that death was due to Jimson weed. Cattle were reported as poisoned from weed killer when nothing but petroleum oil had been used. The death of stock attributed to an economic poison was traced to the toxicity of sorghum or sudan grass. The division welcomes legitimate and authenticated complaints, he stated, but does what it can to decry unwarranted rumors.

◆

Microbes by the Million

By Hugh Nicol. Published by Penguin Books, Ltd., Harmondsworth, Middlesex, England. 4⅜ x 7¼. 250 pages. 6 d. This is the sort of book one never expects to find written and which seldom appears in second editions. Not that it is uninteresting in subject matter to some few people, and not that it is not well written in its class. The difficulty with such books is that to attract any number of readers they must at once be too technical for the layman, while too simple for the trained worker in the field. The present text deals with the occurrence, nature and study of microbes. To the person unfamiliar with study of cultures under the microscope it will provide a general idea of the technique employed by the microbiologist and for this purpose might be recommended as informative reading for those connected in non-technical capacity with the disinfectant field.

Of the general need for increased use for disinfectants the author seems definitely to be on the critical side. He says: "The fear of microbes is one which the sellers of disinfectants and disinfectant soaps make great play. If you wash the kitchen with a disinfectant to destroy germs brought in from the garden, you should ask yourself why it does not seem desirable to disinfect the garden itself, or at least to scrub potatoes and carrots and onions with disinfectant as soon as the greengrocer delivers them. And, of course, you should not have any pot plants: which is absurd! Disinfectants are valuable in sick-room, sanatorium, and surgical theatre, but it is easy to overrate their value in the home.

"Plain soap and water is wonderfully effective for ordinary cleansing operations. It is doubtful whether medicated soaps (such as "household carbolic") have any special virtue, but they have a smell that to many people is reassuring and therefore pleasant. Probably the disinfectant value of such soaps is about the same as that of their higher-class relatives, the toilet soaps, for the smell of which no claim is made beyond agreeableness."

◆

Entomologists Issue Entoma

The third edition of *Entoma*, a directory of insect pest control, has been issued for 1939 by the Eastern branch of the American Association of Economic Entomologists, New Brunswick, N. J. Dr. C. C. Hamilton of the New Jersey Agricultural Experiment Station at New Brunswick is chairman of the section and editor. H. B. Weiss of the New Jersey Department of Agriculture, Trenton, is secretary-treasurer of the section. The work is a 172-page directory of insecticide materials and manufacturers, and entomological services. A list of pest control operators in various parts of the country is also included. The price is one dollar per copy.

Olive Oil

Olive Oil Foots

Deliveries spot and future in barrels, tank cars, drums or tank wagons.

ESSENTIAL OILS

Lemon—Bergamot—Orange

LEGHORN TRADING CO.
INC.

21 West St., New York

Phone: WHitehall 3-9636-7-8

ITALY—SPAIN—GREECE—TURKEY—AFRICA

Use Our
"MOPCO"
65%
T. F. A.

Boiled Down

COTTON SEED SOAP

To make better Soap Powder at lower cost

MURRAY
OIL PRODUCTS CO.
INCORPORATED
21 WEST ST., NEW YORK

SHAVING CREAM

TOOTH PASTE

In Bulk Or

Under Your Own Name in our special tubes and cartons. These are lithographed with a blank space for *YOUR* label. In any quantity from one gross up.

GEO. A. SCHMIDT CO.
INCORPORATED
Manufacturers of SOAPS of Every Description
236-238 West North Avenue
Chicago.

HIGH GRADE CRESYLIC ACID

SPECIAL FRACTIONS
215/230°
230/260°

• • •

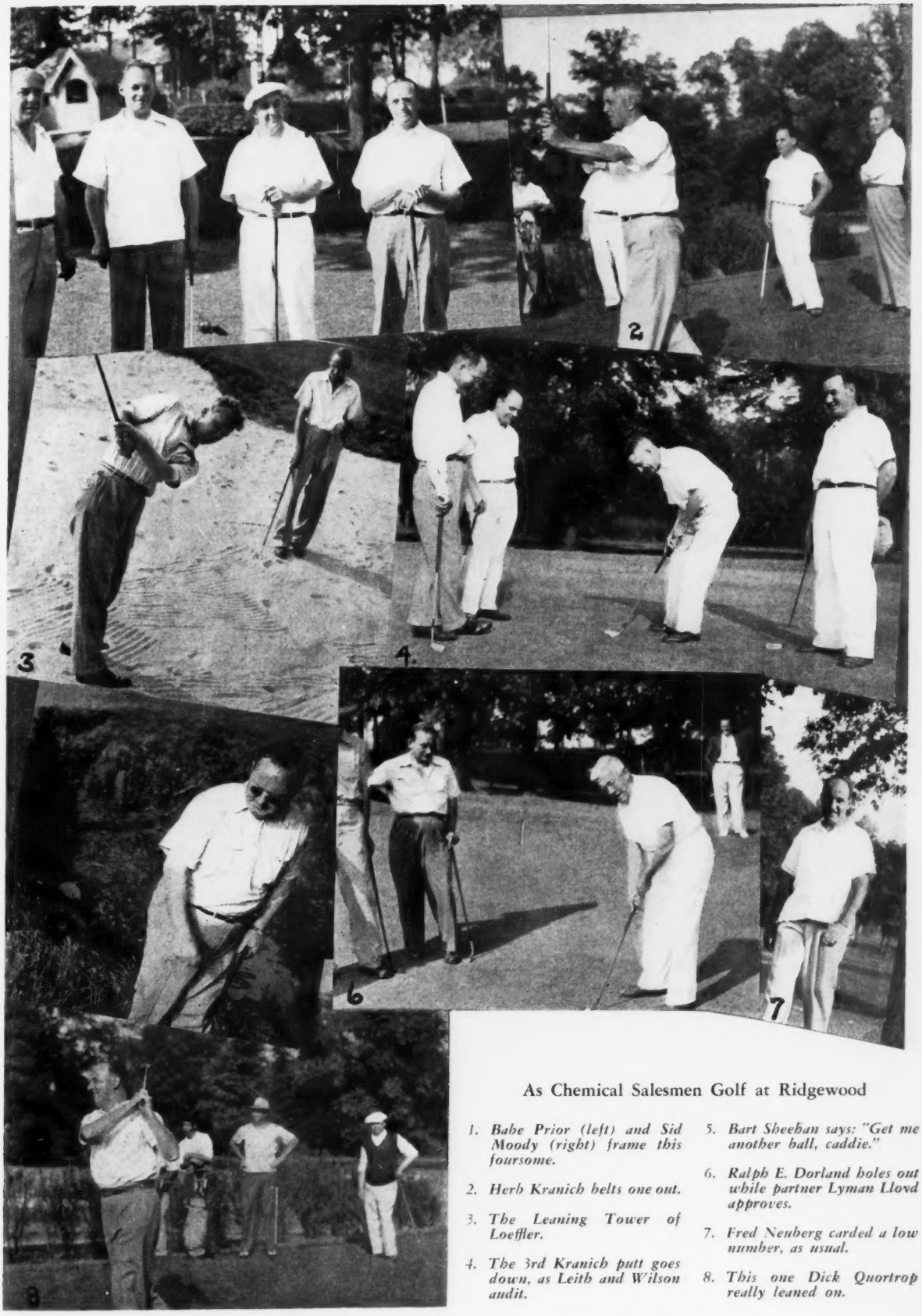
HIGH BOILING
TAR ACIDS
TO GIVE RIDEAL-WALKER
COEFFICIENT 25/28

• • •

WHITE EMULSION
TAR ACID CREOSOTE

• • •

MIRVALE CHEMICAL CO., Ltd.
MIRFIELD YORKS, ENG.



As Chemical Salesmen Golf at Ridgewood

1. *Babe Prior (left) and Sid Moody (right) frame this foursome.*
2. *Herb Kranich belts one out.*
3. *The Leaning Tower of Loeffler.*
4. *The 3rd Kranich putt goes down, as Leith and Wilson audit.*
5. *Bart Sheehan says: "Get me another ball, caddie."*
6. *Ralph E. Dorland holes out while partner Lyman Lloyd approves.*
7. *Fred Neuberg carded a low number, as usual.*
8. *This one Dick Quortrop really leaned on.*

The HOLZ-EM SOLVES the PROBLEM



of convenient and proper application of floor waxes, seals and varnishes. You can be sure that your products are being used correctly by selling or recommending the HOLZ-EM WAX APPLICATOR and SPREADER to do the job. Designed by experts, made of the best materials, the HOLZ-EM will help build your list of satisfied customers just as it has done for others who are already familiar with the product.

We manufacture a complete line of wool applicators, cotton dust mops and cotton wet mops. For prices and samples write

AMERICAN STANDARD MFG. CO.
2509-13 South Green Street Chicago, Ill.

SPECIALTY SOAP PRODUCTS

Liquid Soap Base
Potash Oil Soap
Liquid Soap
U. S. P. Green Soap
Auto Soaps
Shampoo
Pine Oil Soap
Shampoo Base
U. S. P. Cresol Compound
Coal Tar Disinfectants
Pine Oil Disinfectants
Insecticides
Liquid Floor Wax

We manufacture for the trade only

HARLEY SOAP CO.,
2832 E. Pacific St.,
Philadelphia, Pa.



Ask for samples of above specialty bulk products.

A new floor wax

for the janitor supply and jobbing trades which is

waterproof

and which gives a

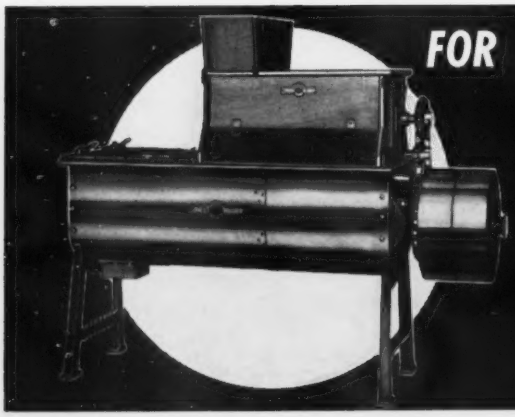
high gloss

≫

ZIP-ON WAX

Dries very bright and becomes water resistant as soon as dry. Wax content guaranteed 100% Carnauba. Supplied in bulk, or with your label in any size container.

Shawmut Specialty Co.
91 Bickford St. Boston



FOR EFFICIENT, ECONOMICAL MIXING

OF SWEEPING COMPOUNDS, DEODORANT CRYSTALS, INSECTICIDES Lower power consumption, rapid, through mixing, and long trouble-free service feature this Sprout-Waldron mixer. Brush sifter, to remove lumps and foreign material, is optional equipment. Capacities 2½ to 15 cu. ft. *Write for catalog.*

SPROUT, WALDRON & CO., INC.
132 SHERMAN ST. MUNCY, PA.
MIXING, CONVEYING, POWER TRANSMISSION MACHINERY

New Termite Detector

The "Burgess Termite Detector," an instrument manufactured by W. S. Burgess, Burgess Chemical Co., Benton Harbor, Mich., is said to meet the need for determining the presence of termites in a building without tearing out parts of timbers. The "detector" is housed in a small case thirteen inches long, eleven inches high, and eight inches thick; looks like a new type portable radio and is self-contained, operating from batteries in the case. The unit has a small hypersensitive vibration pick-up (microphone which picks up the sound of termites, transmits the sound to the radio-like amplifier and then to the earphones.

Disinfectant Imports Down

Imports of disinfectants into Cuba during 1938 amounted to only 420,219 kilograms as compared to 614,490 kilograms in 1937, according to the American Commercial Attache in Havana. Of these totals, the United States supplied 398,367 kilograms in 1938 and 592,302 kilograms in 1937. Most of the demand for household insecticides was met by a domestic product.

Sta-Way Advertising

National Carbon Co., New York, has just started a national advertising campaign for its insect repellent lotion "Sta-Way," by placing insertions in three of the nation's better known magazines. Coinciding with the magazine and a business paper campaign, extensive sampling will be conducted through camps, schools of agriculture and entomologists. J. M. Mathes is handling the account.

Legislation on Imports

A bill has recently been introduced into the House of Representatives requiring informative advertising of imported ingredients in a product. The bill (No. 5985) provides that imported articles shall clearly show on the article or its container, the country or countries of origin. "Imported article" is defined to include not only an article which has been, in whole, imported, but also articles which although manufactured in the United States, contain imported ingredients in a major portion.

J. A. Huisking Joins Fritzsche

Joseph A. Huisking who, as reported in the June issue of *Soap & Sanitary Chemicals*, was to join the staff of Fritzsche Bros., Inc., July 1, in assuming his new duties terminated twenty-seven years of service with Charles L. Huisking & Co., of which firm he was secretary.



Dr. Dreyfus in Switzerland

Dr. William Dreyfus, director of the chemical department of West Disinfecting Co., L. I. City, N. Y., sailed June 21, on the *SS Ile de France*, for his annual trip to Oberendingen, Aargau, Switzerland. He plans to return in the Fall.

Mothproof Co. Changes Name

American Mothproof Co., Los Angeles, has changed its name to Wilkil Pest Control Co., and has moved to new and larger quarters at 1174 South La Brea Ave.

Issue Packagers Digest

Stokes & Smith Co., Philadelphia, has just published a booklet which reviews their complete line of filling, packaging and wrapping equipment. Copies are available.

Alexander With Cardinal

Benjamin Alexander, a well known figure in the sanitary products industry for a number of years, has recently joined Cardinal Laboratories, Chicago manufacturers of polishes and insecticides.

Adopt Pest Control Code

At a meeting of the Associated Exterminators & Fumigators of New York held on June 27 at the Cafe Loyale, New York, a code covering advertising practices was adopted. The code covers mostly close restriction of advertising claims and has been under consideration by the group for several months. A proposal to change the name of the association to the Pest Control Association of New York was held over for a vote at the next meeting. The guest speakers at the meeting included B. L. Houghton of Houghton & Byrne, well-known pest control operators of Sydney, Australia, and Ira P. Mac Nair, editor of *Soap & Sanitary Chemicals*.

Appoint Felton Agents

Felton Chemical Co., Brooklyn, has announced the appointment of Jas. M. Rothschild Co., 1020 Fourth Avenue So., Seattle, Wash. and Lang-Senders & Co., 121 N.W. Fifth Avenue, Portland, Ore. as agents for their respective states. Local stocks will be carried. Robert E. Felton, sales manager of the company's western branch, has just returned from a trip through the Pacific Northwest.

N.A.I.D.M. Registration List

(*From Page* 93)

Fuller, Henry C.

Hamilton, Clyde C.—N. J. Agri. Experiment Station.

Jones, Florence M.—National Assn. of Manufacturers.

McGovran, E. R.—U. S. D. A.

Newcomb, Dr. E. L.—Secty. N. W. D. A.

Peckham, J. O.—A. C. Neilson & Co.

Reynolds, F. W.—National Bureau of Standards.

Roark, R. C.—U. S. D. A.

Singler, E. H.—Secty. Maple Flooring Assn.

Sullivan, W. N.—U. S. D. A.

ATTENTION

SOAP & SANITARY PRODUCTS MANUFACTURERS

We are selling the following equipment from the Larkin Company plant in Buffalo, New York. The machinery listed below is of recent design and in excellent condition. Don't miss this opportunity to fill your requirements at unusually low prices.

OUTSTANDING BARGAINS FROM LARKIN PLANT

Proctor & Schwartz 2 Fan Soap Chip Dryer with 36" Roll. Complete. Very Fine Condition.

Johnson Automatic Soap Chip Filling, Weighing and Sealing Machines for 2 lb. and 5 lb. Packages.

1 Pneumatic Scale Corp., Rotary Round Can Filler with conveyors for Filling Powders.

10 Dopp Crutchers.

4 Perfection Crutchers.

5' x 7' Crystalizing Roll Complete with Mixer for Manufacturing Fluffy Soap Powder.

5 Roll Water Cooled H-A Mill for Making Polished Flakes.

2 No. 14 Blanchard Soap Powder Mills.

Also Dry Powder Mixers and Other Miscellaneous Equipment

We invite your inspection and inquiries. All machinery and equipment is priced for immediate sale.

USED SPECIALS FROM OUR REGULAR CHICAGO STOCK

H-A, 1500, 3000, 4000, 5000 lbs. capacity, Steam Jacketed Crutchers.
Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.
Ralston Automatic Soap Presses.
Scouring Soap Presses.
Empire State, Dopp & Crosby Foot Presses.
2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.
H-A 4 and 5 roll Steel Mills.
H-A Automatic and Hand-Power slabbers.
Proctor & Schwartz Bar Soap Dryers.
Blanchard No. 10-A and No. 14 Soap Powder Mills.
J. H. Day Jaw Soap Crusher.
H-A 6, 8 and 10 inch Single Screw Plodders.
Allbright-Nell 10 inch Plodders.
Filling and Weighing Machines for Flakes, Powders, etc.
Steel Soap frames, all sizes.
Steam Jacketed Soap Remelters.
Automatic Soap Wrapping Machines.
Glycerine Evaporators, Pumps.
Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.
Perrin 18 inch Filter Press with Jacketed Plates.
Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter Tops.
Day Grinding and Sifting Machinery.
Schultz-O'Neill Mills.
Day Pony Mixers.
Gardiner Sifter and Mixer.
Proctor & Schwartz large roll Soap Chip Dryers complete.
Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.
Day Talcum Powder Mixers.
All types and sizes—Tanks and Kettles.
Ralston and H.A. Automatic Cutting Tables.
Soap Dies for Foot and Automatic Presses.
Broughton Soap Powder Mixers.
Williams Crutcher and Pulverizer.
National Filling and Weighing Machines.

NEWMAN TALLOW & SOAP MACHINERY CO.

1051 W. 35th ST., CHICAGO, ILLINOIS

Telephone: Yards 3665-3666

OUR FORTY YEARS SOAP EXPERIENCE CAN HELP SOLVE YOUR PROBLEMS

Classified Advertising

Classified Advertising—All classified advertisements will be charged for at the rate of ten cents per word, $2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, $1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap*, 254 West 31st St., New York.

Positions Wanted

Superintendent & Soap Chemist: Specialist in high grade shampoos and all type potash soaps. 14 years experience. 9 years with present firm. Desires responsible position with more progressive concern. Address Box No. 634 care of *Soap*.

Salesman—Desires connection with sanitary products manufacturer to cover industrial districts of Rhode Island and possibly adjacent territory. Good background sales experience but none in sanitary products, hard worker, clean record, best references. Protestant American. Prefer firm already selling that territory. Address Box No. 645, care *Soap*.

Technical Service: Soap-chemist well versed in the manufacture and sale of all types Industrial soaps, Specialties and Institutional Cleaners to Tanners, Brewers and Jobbers. Is interested in new connection in California. Address Box No. 635 care of *Soap*.

Soap Maker, Chemist, Perfumer: Old timer in toilet, laundry, soda and potash soaps. Wants short jobs. Will teach processes, remodel plants, etc. Address Box No. 643, care of *Soap*.

Soap Maker: Thoroughly trained in the manufacture of toilet soaps and cosmetics as well as in soap powders. More than 12 years experience. Can take charge of plant. Chemical graduate. Best references. Address Box No. 633 care of *Soap*.

Plant Engineer: Under 30, now employed, desires change. Several years experience in pharmaceutical and chemical plant design and maintenance. Tactful in handling labor. Adress Box No. 637 care of *Soap*.

Experienced Soap Maker wishes to make permanent connection. Able to manufacture Neutral Liquid Soap (without doctoring), also insecticide non-rubbing wax, prepared liquid and paste waxes, metal polishes, etc. Address Box No. 644, care *Soap*.

YOU'RE INVITED

To visit our convenient neighboring offices on your way to the New York World's Fair.

Liquidation Textile Dye Works	Warehouse and Shops
River Road, Fairlawn, N. J.	335 Doremus Ave., Newark, N. J.

Crutchers	**Pulverizers**
Soap Kettles	**Soap Pumps**
Powder Mixers	**Soap Chippers**
Granite Mills	**Filter Presses**
Plodders	**Soap Frames**
Slabbers	**Powder Fillers**
Foot and Automatic Soap Presses	**Labellers**
	Tanks
Cutting Tables	**Boilers**

Selected Specials

2—Proctor & Schwartz Soap Chip Dryers, steel frame; 1 with single roll mill.
3—Houchin Plodders, 10", 8".
4—Steel Wool Mfg. Machines, complete.
3—Automatic Soap Wrapping Machines, electric glue sealers, adjustable.
1—Jones automatic Soap Press.
2—Pneumatic Scale Carton Packaging Units.

Send for latest "Consolidated News"

CONSOLIDATED PRODUCTS CO., INC.
15-21 PARK ROW — NEW YORK, N. Y.
BArclay 7-0600 — Cable Address: Equipment
We buy your idle Machinery—Send us a list.

Safeguarding Your Product



● Filtrol Products are subjected to an activating process so exacting that their cleanliness and purity recommends them to all manufacturers of edible .. as well as inedible products.

FILTROL 33F

FILTERING MATERIAL FOR DECOLORIZING AND PURIFYING

FILTROL CORPORATION

GENERAL OFFICES: 315 W. FIFTH ST., LOS ANGELES, CALIFORNIA
PLANTS: VERNON, CALIFORNIA · JACKSON, MISSISSIPPI

Soap Maker and Chemist with long experience in the manufacture of all kinds and grades of soaps and soap products. Pacific coast preferred. Address Box No. 642, care of *Soap.*

Soap Maker is looking for steady position also able to make chemical laboratory analyses. Address Box No. 649, care *Soap.*

Graduate Chemist: thoroughly experienced with essential oils, aromatics, etc., production, development, research. Specialist in duplication of essential oils; knows primary sources; presently connected. Address Box No. 641 care of *Soap.*

Chemist Ph.D. Laboratory, plant and executive experience. Knows soaps, waxes, germicides, insecticides and many specialties. Permanent position desired. Location immaterial. Address Box No. 648, care *Soap.*

Positions Open

Soap Chemist: wanted by manufacturer in eastern Pennsylvania. Experienced soap powder, detergents, potash soaps, disinfectants. Salary small to start. Send full details Box No. 646.

Salesman: Experienced with following among bulk consumers of sanitary and floor treatment chemicals; hospitals, hotels, dairies, public buildings, schools, industries, etc. Excellent, permanent commission contract. Write full details for attention. Address Box No. 636 care of *Soap.*

Miscellaneous

Guaranteed Rebuilt Equipment for the Manufacturer of Insecticides and Disinfectants. New York's largest display and stock of Mixers, Dry Mixers, Tanks, Dryers, Grinders, Pulverizers, Hammermills, Labelers, Stills, Day Packers, Filter Presses, Powder Fillers, Carton Fillers and Miscellaneous machinery. First Machinery Corporation, 9th Street and East River Drive, New York, N. Y.

Complete Soap Plant Equipment for Sale: Proctor soap chip dryer; automatic soap press; wrapping machine; 4 roll stone mills; foot press; plodders 6", 8", 10"; soap boiling kettles; 6 knife chipper; two-way cutting table; frames; filter presses; crutchers; mixers; boilers. Stein Equipment Corp., 426 Broome St., New York City.

Floor Brushes—We manufacture a very complete line. Catalogue sent upon request. Flour City Brush Company, Minneapolis, Minn., or Pacific Coast Brush Co., Los Angeles, Calif.

#108 WINDSOR'S new standard in NO-RUBBING WAX

Because it's the *service-test* that really counts on any floor job. Windsor's new No. 108 is rapidly being recognized as the industry's standard for quality. A solid basis for judging all other floor waxes. *Here's why you'll find No. 108 best for your jobs:*

#108 For Heavy Traffic
#108 For Fine Lustre
#108 For Greater Coverage
#108 Is Water Proof
#108 Won't "Milk"
#108 Is Not Odorous

For All Types of Floors

Limited Trial Offer: Your first 5 gal. order shipped at 55 gal. drum price (with full return and credit privilege). ORDER TODAY!

WINDSOR WAX CO., Inc.
53 Park Place · New York



TALLOW
LARD OIL
NEATSFOOT OIL
ANIMAL STEARINE
ACIDLESS TALLOW OIL

Prompt Delivery—Drums, Barrels, or Tank Cars.

INDEPENDENT MANUFACTURING CO.
Bridesburg P. O. Philadelphia, Pa.

Raw Materials and Equipment

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index of Advertisements, on page 134 for page numbers. *"Say you saw it in SOAP."*

ALKALIES

American Cyanamid & Chemical Corp.
John A. Chew, Inc.
Columbia Alkali Co.
Diamond Alkali Co.
Dow Chemical Co.
Eastern Industries
Hooker Electrochemical Co.
Innis, Speiden & Co.
Niagara Alkali Co.
Solvay Sales Corp.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

BULK AND PRIVATE BRAND PRODUCTS

Associated Chemists, Inc. (Insecticides)
Baird & McGuire, Inc. (Disinfectants)
Buckingham Wax Corp. (Wax Products)
Candy & Co. (Floor Products)
Chemical Supply Co. (Disinfectants, etc.)
Clifton Chemical Co. (Sanitary Supplies)
Curran Corp. (Detergents)
Davies-Young Soap Co. (Potash Soaps)
Empire Chem. Prods. Co. (Sanitary Supplies)
Federal Varnish Co. (Floor Products)
Fuld Bros. (Sanitary Supplies)
Harley Soap Co. (Soap Specialties)
Hockwald Chemical Co. (Sanitary Supplies)
Hysan Products Co. (Sanitary Supplies)
Koppers Co. (Disinfectants)
Kranich Soap Co. (Potash Soaps)
Peck's Products Co. (Sanitary Supplies)
Philadelphia Quartz Co. (Detergents)
Geo. A. Schmidt & Co. (Soaps)
Shawmut Specialty Co. (Wax Products)
Twin City Shellac Co. (Wax Products)
Uncle Sam Chemical Co. (Sanitary Supplies)
T. F. Washburn Co. (Floor Products)
White Tar Co. (Disinfectants, etc.)
Windsor Wax Co. (Wax Products)

CHEMICALS

American-British Chemical Supplies
American Cyanamid & Chemical Corp.
John A. Chew, Inc.
Columbia Alkali Co.
Diamond Alkali Co.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Eastern Industries
General Chemical Co.
General Dyestuffs Corp.
Hooker Electrochemical Co.
Industrial Chemical Sales Div.
Innis, Speiden & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Philadelphia Quartz Co.
Rohm & Haas Co.
Solvay Sales Corp.
Standard Silicate Co.
Jos. Turner & Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS
(Cresylic Acid, Tar Acid Oil, etc.)

American-British Chemical Supplies
American Cyanamid & Chemical Corp.
Baird & McGuire, Inc.
Barrett Co.
Innis, Speiden & Co.
Koppers Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

COLORS

Fezandie & Sperrle
Pylam Products Co.

CONTAINERS and CLOSURES

American Can Co. (Tin Cans and Steel Pails)
Anchor-Hocking Glass Corp. (Closures & Bottles)
Continental Can Co. (Tin Cans)
National Can Co. (Cans)
Owens-Illinois Glass Co. (Bottles & Closures)
Wilson & Bennett Mfg. Co. (Steel Pails and Drums)

DEODORIZING BLOCK HOLDERS

Clifton Chemical Co.
Fuld Bros.
Hysan Products Co.
National Sanitary Chemical Co.

INSECTICIDES, SYNTHETIC

American Cyanamid & Chemical Corp.
Associated Chemists, Inc.
Rohm & Haas Co.
Whitmire Research Corp.

MACHINERY

Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
International Nickel Co. (Monel Metal)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Karl Kiefer Machine Co. (Filling Machinery)
Koppers Company (Coal Tar Plants, Power Plants, Valves, Castings, Pipe, Tanks)
Mixing Equipment Co. (Tanks, Mixers)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Sprout, Waldron & Co. (Mixing, Conveying, etc)
Stokes & Smith Co. (Pkg. Machy.)

Raw Material and Equipment Guide

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index of Advertisements, on page 134 for page numbers. *"Say you saw it in SOAP."*

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.

MISCELLANEOUS

American Colloid Co. (Bentonite)
American Standard Mfg. Co. (Wax Applicator)
Anchor-Hocking Glass Corp. (Metal Caps)
Barnsdall Tripoli Co. (Pumice—Tripoli)
Dow Chemical Co. (Germicides, Agricultural Insecticides, Fumigants)
Filtrol Corp. (Purifying and Decolorizing Clay)
Garnet Chem. Corp. (Drip Machines)
General Petroleum Corp. (Naphthenic Acids)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Div. (Decol. carbon, Chalk)
Innis, Speiden & Co. (Fumigants)
Koppers Company (Coal, Coke, Roofing Materials)
Lenape Trading Co. (Waxes)
Pennsylvania Refining Co. (White Oils)
Pylam Products Co. (Lathering Agent)
S. Schwabacher & Co. (Naphthenic Soaps, White Mineral Oils)

OILS, FATS, AND FATTY ACIDS

Eastern Industries
Independent Mfg. Co.
Industrial Chemical Sales Div.
Leghorn Trading Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Orbis Products Corp. (Stearic Acid)
Wecoline Products Co.
Welch, Holme & Clark Co.

PARADICHLORBENZENE

John A. Chew, Inc.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Jos. Turner & Co.

PERFUMING MATERIALS

Amer-British Chemical Supplies
Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer Inc.
E. I. Du Pont de Nemours & Co.
Felton Chemical Corp.
Firmenich & Co.
Fritzsche Brothers, Inc.
General Drug Co.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Monsanto Chemical Co.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

PETROLEUM PRODUCTS

Deodorized Insecticide Base, White Oils, Petrolatum, Paraffine, Oils, etc.

Atlantic Refining Co.
Pennsylvania Refining Co.
S. Schwabacher & Co.
L. Sonneborn Sons.

PHOSPHATES

Trisodium, Sodium Pyrophosphate, etc.

American Cyanamid & Chemical Corp.
John A. Chew, Inc.
E. I. du Pont de Nemours & Co.
General Chemical Co.
Monsanto Chemical Works
Victor Chemical Works
Warner Chemical Co.

PYRETHRUM AND DERRIS PRODUCTS

Insect Flowers and Powder, Pyrethrum Extract, Derris Products

Associated Chemists, Inc.
Derris, Inc.
S. B. Penick & Co.
R. J. Prentiss & Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
John Powell & Co.

SILICATES

E. I. du Pont de Nemours & Co.
General Chemical Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SOAP DISPENSERS

Bobrick Mfg. Co.
Clifton Chemical Co.
Fuld Bros.
Garnet Chem. Corp.
Hockwald Chemical Co.

SPRAYERS

Breuer Electric Mfg. Co. (Electric)
Dula Mfg. Co. (Steam Vaporizers)
Fumeral Co. (Spraying Systems)

WAXES AND GUMS

Carnauba, Shellac, Candelilla, etc.

American Cyanamid & Chem. Corp.
General Dyestuff Corp. (Waxes)
Innis, Speiden & Co. (Waxes)
MacLac Co. (Shellac)
Mantrose Corp. (Shellac)
Twin City Shellac Co. (Shellac)

Professional Directory

Pease Laboratories, Inc.
Est. 1904
39 West 38th Street — New York

Chemical, Bacteriological and Pathological Testing and Research. Special Animal Investigations of Pharmacologic, Toxic or Skin Irritating Properties.

H. A. SEIL, Ph.D — E. B. PUTT, Ph.C., B.Sc.
SEIL, PUTT & RUSBY, INC.
Analytical and Consulting Chemists
Specialists in the Analysis of Pyrethrum Flowers, Derris Root, Barbasco, or Cube Root—Their Concentrates and Finished Preparations
ESSENTIAL OILS — SOAP
16 East 34th Street, New York, N. Y.

STILLWELL AND GLADDING, Inc.
Analytical and Consulting Chemists
Members Association of
Consulting Chemists and Chemical Engineers
130 Cedar Street — New York City

SOAPS — DETERGENTS
Analyses — *Development*
Consultation — *Formulas*
Hochstadter Laboratories
INCORPORATED
254 West 31st St. — New York City

KILLING
strength of Insecticides
by PEET GRADY METHOD
(Official I. & D. code method) and
PYRETHRINS in PYRETHRUM FLOWERS
(by Gnadinger's Method)
We raised and killed more than 1 million flies in the last 2 years
ILLINOIS CHEMICAL LABORATORIES, INC.
5235 WEST 65th STREET — CHICAGO, ILL.

CHARLES S. GLICKMAN
Consulting Chemist
SPECIALIZING IN
Wax Polishes—Chemical Specialties
White Shoe Polishes—Floor Seals
Plant Design — Formulas — New Products
220 Broadway — New York
COrtlandt 7-3382

FOSTER D. SNELL, INC.
Chemists—Engineers
Every form of Chemical Service
305 WASHINGTON STREET — BROOKLYN, N. Y.

Patents—Trade Marks
All cases submitted given personal attention.
Form "Evidence of Conception" with instructions for use and "Schedule of Government and Attorneys' Fees"—Free
Lancaster, Allwine & Rommel
PATENT LAW OFFICES
Suite 402, Bowen Building — Washington, D. C.

ALAN PORTER LEE, Inc.
Contracting and Consulting Engineers
Design and Construction of Equipment and Plants for Producing and Processing Fats, Oils, Soaps and Related Products
136 LIBERTY STREET, NEW YORK, N. Y.
Cable Address: "ALPORTLE", New York

PATENTS AND TRADE MARKS
Patent and Protect Your Inventions.
Expert service. Prompt attention.
LESTER L. SARGENT
REGISTERED PATENT ATTORNEY
1115 K St., N. W., Washington, D. C.

Skinner & Sherman, Inc.
246 Stuart Street, Boston, Mass.
Bacteriologists and Chemists
Disinfectants tested for germicidal value or phenol co efficient by any of the recognized methods.
Research—Analyses—Tests

Refer To Your 1939
SOAP BLUE BOOK
for F.D.A. Method for Testing of Disinfectants.
Peet-Grady Method for Testing Insecticides.
MAC NAIR-DORLAND CO.
Publishers
254 W. 31st Street — New York, N. Y.

Index to Advertisers

For product classification see pages 131 *and* 132

* For further details see announcement in 1939 SOAP BLUE BOOK

*American-British Chemical Supplies 114
American Can Co. 44
American Cyanamid & Chemical Corp. 10
American Standard Mfg. Co. 126
Anchor-Hocking Glass Corp. 4, 17
Aromatic Products, Inc. 78
Associated Chemists, Inc. 108
Atlantic Refining Co. ..... June

*Baird & McGuire, Inc. 86
Barnsdall Tripoli Co. 120
Barrett Co. 104
Bobrick Mfg. Co. 135
Books 52
*Breuer Electric Mfg. Co. 116
Buckingham Wax Corp. 120

*Candy & Co. ..... June
Chemical Supply Co. 114
John A. Chew, Inc. 122
*Clifton Chemical Co. 11
*Columbia Alkali Co. 14
Compagnie Parento 118
*Consolidated Products Co. 129
*Continental Can Co. ..... June
Curran Corp. 112

*Davies-Young Soap Co. 13
*Derris, Inc. ..... June
Diamond Alkali Co. ..... June
*Dodge & Olcott Co. 98
*Dow Chemical Co. ..... Back Cover
*P. R. Dreyer, Inc. ..... June
Dula Mfg. Co. 112
*E. I. DuPont de Nemours Co. 6

Eastern Industries 34
*Electro Bleaching Gas Co. 40
Empire Chemical Prods. Co. ..... June

*Federal Varnish Co. 106
*Felton Chemical Co. 7, 85
Fezandie & Sperrle 118
Filtrol Corp. 129
*Firmenich & Co. ..... 2nd Cover
Anthony J. Fries 120
Fritzsche Brothers, Inc. 42, 43
*Fuld Brothers 3
*Fumeral Co. 106

Garnet Chemical Corp. ..... May
*General Chemical Co. 48
*General Drug Co. 16
General Dyestuff Corp. ..... Apr.
General Petroleum Corp. 120
*Givaudan-Delawanna, Inc. ..... 3rd Cover, 77
Charles S. Glickman 133
Harley Soap Co. 126
Hercules Powder Co. ..... June
*Hochstadter Laboratories 133
Hockwald Chemical Co. 122
*Hooker Electrochemical Co. 120
*Houchin Machinery Co. 62
*Huber Machine Co. 68
*Hysan Products Co. 104

Illinois Chemical Labs. 133
Independent Mfg. Co. 130
*Industrial Chemical Sales Division
W. Va. Pulp & Paper Co. 56
*Innis-Speiden & Co. 52

R. A. Jones & Co. 18

Karl Keifer Machine Co. ..... June
*Koppers Co. 76
Kranich Soap Co. 54

Lancaster, Allwine & Rommel 133
*A. P. Lee 133
*Leghorn Trading Co. 124
Lenape Trading Co. ..... June
Lord Baltimore Hotel 135

MacLac Co. 110
Magnus, Mabee & Reynard, Inc. 50
Mantrose Corp. ..... June
Manufacturing Chemist 64
*McCormick & Co. 94
McLaughlin Gormley King Co. 74, 75
Mirvale Chemical Co. 124
*Mixing Equipment Co. ..... May
Monsanto Chemical Corp. ..... June
Murray Oil Prods. Co. 124

*National Can Co. 102
National Sanitary Chemical Co. 110
*Newman Tallow & Soap Machinery Co. 128
*Niagara Alkali Co. 40
Norda Essential Oil & Chemical Co. 73

*Orbis Products Co. ..... June
Owens-Illinois Glass Co. ..... June

*Pease Laboratories 133
Peck's Products Co. 122
S. B. Penick & Co. 79
*Pennsylvania Refining Co. 116
Philadelphia Quartz Co. 46
*John Powell & Co. 71
R. J. Prentiss & Co. 72
*Proctor & Schwartz, Inc. 68
*Pylam Products Co. 68

*Reilly Tar & Chemical Co. 118
*Rohm & Haas Co. 83

*C. G. Sargent's Sons Corp. 50
George A. Schmidt & Co. 124
S. Schwabacher & Co. 135
Seil, Putt & Rusby 133
Shawmut Specialty Co. 126
*Skinner & Sherman 133
*Foster D. Snell 133
*Solvay Sales Corp. 15
*L. Sonneborn Sons 80
Sprout, Waldron & Co. 126
Standard Silicate Co. ..... June
Stillwell & Gladding 133
*Stokes & Smith Co. ..... June

*Tar & Chem. Division Koppers Co. 76
Jos. Turner & Co. ..... June
Twin City Shellac Co. 122

*Uncle Sam Chemical Co. ..... June
*Ungerer & Co. ..... Front Cover

*Van Ameringen-Haebler, Inc. 9, 81
*Victor Chemical Works 38

*Warner Chemical Co. ..... June
*T. F. Washburn Co. ..... June
Wecoline Products Co. 135
*Welch, Holme & Clark Co. 54
*White Tar Co. of N. J. 76
*Whitmire Research Corp. ..... June
Wilson & Bennett Mfg. Co. 108
Windsor Wax Co. 130

Every effort is made to keep this index free of errors, but no responsibility is assumed for any omission.

SURE BOBRICK MAKES LOW PRICED SOAP DISPENSERS



AND ALWAYS HAS! They are designed and manufactured with as much care as the famous Bobrick higher priced models. When you buy Bobrick dispensers, you are not experimenting. You are dealing with a concern that has had thirty-three years experience in building soap dispensers and soap dispensers only. Even though you are now using only a lower priced dispenser, it might pay you to tie up with a manufacturer who can furnish you with anything. Write for our proposition.

Model No. 13—The standard push-up type dispenser. Fills at the top. Chromium plated. Jar screws into base and can be furnished either cemented or uncemented.

Model No. 14—Only a little higher in price than the cheapest, yet far superior. Positive in action. Cannot leak. Piston always in the soap, so washers cannot dry up and stick.



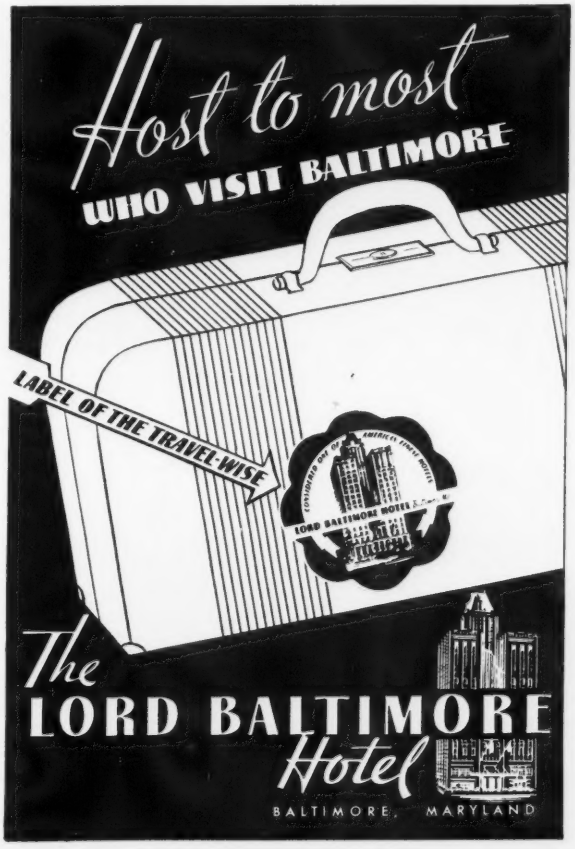
Liquid — Lather — Powder — Gravity Feed Soap Dispensers

Serving the Jobber and Soap Manufacturer Only

BOBRICK MANUFACTURING CORPORATION

Established 1906

15 East 26th Street — New York City





This is not the only plant from which you can buy—
COCONUT — PALM — CORN — LINSEED —
SOYA BEAN—COTTONSEED—WHITE OLEIN
— and other DISTILLED FATTY ACIDS.

But, . . . it is the only plant that has WECOLINE'S standards of purity — color — uniformity — refining — saponification — hydrogenation — and other processings.

So, . . . if you're particular about the quality of your soap or cosmetic products, . . . "ASK WECOLINE," a firm that's particular about the quality of its products.

SPECIFICATIONS AND SAMPLES GLADLY SUBMITTED.

WECOLINE Products, Inc. BOONTON, N.J.
Sales Offices: NEW YORK.....CHICAGO.....BOSTON

NAPHTHENIC SOAPS
NAPHTHENIC ACID SLUDGES

(Mineral Oil Residues)

"Flag Brand" White Mineral Oils - - - U.S.P. and Technical

Specifications upon request

S. Schwabacher & Co., Inc.
25 Beaver Street New York



"What's He Selling?"

PICTURE this. Your salesman is waiting outside and has just sent in his name to this busy guy. The name does not register. Maybe he never heard it before,—and maybe he did. But he has forgotten,—and so he crabs: "Never heard of them! What's he selling?"

But if, in his more calm and leisure moments, he had read something about your products and your firm in the trade papers, the chances of his *not forgetting* your company would be greatly enhanced. Maybe your salesman would get in pronto,—and maybe get an order.

If you want to *keep them from forgetting you* in the field of soap and detergent products, insecticides, sanitary products and chemical specialties, we can recommend with complete confidence advertising in

SOAP *and Sanitary Chemicals*

254 WEST 31st STREET NEW YORK

Member of the A.B.C. and A.B.P.

Tale Ends

LETTERS from manufacturers of soap and sanitary products stating that they sell only to jobbers, and under no circumstances sell to consumers, still continue to come in apropos of the late controversy on this subject. Some of them want the name of the jobber whose complaint started all the argument. Evidently they want to convince him of their lily whiteness,—and incidentally sell him a bill of goods. But the name is a secret, gentlemen,—a secret! Virtue in this case must be its own reward.

* * *

A representative of an insurance company was amazed recently by our statement to him that a great part of the trouble with fake damage suits, — product liability and other kinds as well,—was the willingness of insurance firms to settle out of court for small sums in order to save time, trouble, and expense. He could not conceive of how the insurance companies are encouraging this type of fraud by compromising with crooks,—even when they settle a thousand dollar suit for twenty-five dollars, as they often do. Somebody should write him a letter.

* * *

Who makes soap dies? Who supplies household ammonia under private brand for the trade? And where can you buy this and that? A thousand and one questions of this kind are answered in your 1939 BLUE BOOK. Keep it handy for ready reference.

* * *

We must slip in a word or two here about your subscription to *Soap & Sanitary Chemicals*. Pay it promptly when you receive a subscription expiration notice. Don't file it,—or you may miss your copies and the find out that the A.B.C. (Audit Bureau of Circulations) has made us take your name off the list.